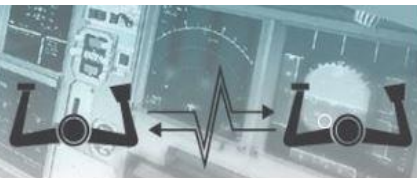


# Vol en duO



## PROCEDURES Airbus A320 FF

### PRE REQUIS :

- Lire les check listes Pré Requis
- Appliquer les réglages de Pré Connexion relatif à l'appareil

**VolenduO** : Groupe pratiquant le vol en cockpit partagé

Site : Cliquez sur l'image au dessus [http://www.serv-rv.fr/Forum\\_vpi/](http://www.serv-rv.fr/Forum_vpi/)

Contact : [volenduo@laposte.net](mailto:volenduo@laposte.net)

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**VolenduO** : Group practicing shared cockpit flight

Site: Click on the image above ([http://www.serv-rv.fr/Forum\\_vpi/](http://www.serv-rv.fr/Forum_vpi/))

Contact: [volenduo@laposte.net](mailto:volenduo@laposte.net)

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Documents techniques , technical documents :

<http://www.smartcockpit.com/plane/AIRBUS/A320.html>

[http://a320dp.com/A320\\_DP/menu.html](http://a320dp.com/A320_DP/menu.html)

<https://www.flightpilote.fr/apprendre-le-pilotage-dun-airbus-a320>

MERCI JACQUES :-)

<https://skywaypublic.ru/index/a320im/0-10>

Ce document a été construit pour être utilisé en cockpit partagé (Smartcopilot) avec l'Airbus A320 de Flight Factor.

Les parties concernant les chargements du carburant, des pax, du fret sont spécifiques à cet add-on.

Hormis ces spécificités, les procédures et checklist associées peuvent être utilisées par les Airbus de la série A32x, A31x

PF = Pilot Flying  
PM Pilot Monitoring

Les procédures sont réalisées de mémoire :-)

Le PF appelle la checklist qui est lue par le PM  
Le PF vérifie et confirme les items de la checklist

"C/L down to the line" signifie que la checklist est lu jusqu'au trait gras.

"C/L below the line" signifie que la checklist est lu après le trait gras.

Les zones en vert clair définissent des actions réalisées en parallèle.

Notes spécifiques à Smartcopilot :  
MASTER : pilote qui initie la connexion  
SLAVE : pilote qui rejoint la connexion

Annexes : Panels description

This document was built for use in a shared cockpit (Smartcopilot) with the Airbus A320 Flight Factor .  
The parts concerning fuel, pax and freight loading are specific to this add-on.

Apart from these specificities, the associated procedures and checklist can be used by the Airbus A32x series

PF = Pilot Flying  
PM = Pilot Monitoring

The procedures are performed by memory :-)

The PF calls the checklist which is read by the PM  
The PF checks and confirms the items of the checklist

"C / L down to the line" means that the checklist is read up to the bold line.

"C / L below the line" means that the checklist is read after the bold line.

The light green areas define actions carried out in parallel.

Notes specific to Smartcopilot:  
MASTER: pilot who initiates the connection  
SLAVE: pilot joining the connection

Appendices: Description Panels



Ces icones permettent la navigation dans le pdf/These icons allow navigation in the pdf

| PF  |         | PM             |     |
|---|---------|----------------|-----|
| <b>FUEL USING REFUELING PANEL (overhead)</b>                  |         |                |     |
| MASTER >> FUEL TRUCK (EFB)                                    | CALL    |                |     |
| <b>IF USING REFUELING PANEL ON OVERHEAD</b>                   |         |                |     |
| BAT   | ON      |                |     |
| EXT POWER   | AS RQRD |                |     |
| POWER   | ON      |                |     |
| PRESELECTED (FUEL QUANTITY]                                   | SET     |                |     |
| CTL   | ON      |                |     |
| Then when done : CTL  | OFF     |                |     |
| POWER   | OFF     |                |     |
| EFB FUEL PANEL  | GET     | EFB FUEL PANEL | GET |
| <b>IF USING EFB FUEL PANEL</b>                                |         |                |     |
| MASTER ADJUST QUANTITY + PUSH SET ... THEN ... SLAVE PUSH GET |         |                |     |
| MASTER >> FUEL TRUCK (EFB)                                    | REMOVE  |                |     |

| <b>PAYLOAD</b>                               |        |                             |     |
|--|--------|-----------------------------|-----|
| <b>USING PAX PANEL (EFB)</b>                 |        |                             |     |
| MASTER >> AIRSTAIRS                          | CALL   |                             |     |
| CABIN A B C                                  | SET    | CABIN A B C                 | SET |
| VALIDATE (MASTER AND SLAVE) SET BUTTON       |        |                             |     |
| MASTER >> AIRSTAIRS                          | REMOVE |                             |     |
| <b>USING CARGO PANEL (EFB)</b>               |        |                             |     |
| MASTER >> BAGAGE LOADER                      | CALL   |                             |     |
| CARGO 1 3 4 5 (CARGO 5 MAX)                  | SET    | CARGO 1 3 4 5 (CARGO 5 MAX) | SET |
| VALIDATE (MASTER AND SLAVE) SET BUTTON       |        |                             |     |
| MASTER >> BAGAGE LOADER                      | REMOVE |                             |     |
| EFB Cross check the PERF DATA Tab SET BUTTON |        |                             |     |

| <b>PRELIMINARY COCKPIT PREPARATION</b> |           |                               |                                      |
|--|-----------|-------------------------------|--------------------------------------|
|  |           | ENG MASTERS 1, 2              | OFF                                  |
|  |           | ENG MODE selector             | NORM                                 |
|  |           | WEATHER RADAR                 | OFF                                  |
|  |           | L/G lever                     | DOWN                                 |
|  |           | Both WIPER selectors          | OFF                                  |
|  |           | <b>BAT</b>                    | <b>CHECK / AUTO</b>                  |
|  |           | <b>EXT PWR</b>                | <b>AS RQRD</b>                       |
|  |           | <b>AIR STARTER UNIT (ASU)</b> | <b>AS RQRD</b>                       |
|  |           | AIR COND panel                | SET                                  |
|  |           | COCKPIT LIGHTS                | AS RQRD                              |
|  |           | ECAM OXY PRESS >> DOOR        | CHECK                                |
|  |           | ECAM HYD QTY > HYD            | CHECK                                |
|  |           | ECAM ENG OIL QTY > ENG        | CHECK                                |
|  |           | FLAPS                         | CHECK POSITION                       |
|  |           | EMER EQPT                     | CHECK                                |
|  |           | SPD BRK lever                 | CHECK RET AND<br>DISARMED            |
|  |           | <b>PARKING BRAKE handle</b>   | <b>ON</b>                            |
|  |           | ACCU/BRAKES PRESS             | CHECK AND PRESSURIZE<br>IF NECESSARY |
| COCKPIT LIGHTS                         | 51        |                               |                                      |
| ECAM                                   | CHECK     |                               |                                      |
| RCL pb                                 | PRESS 3 s |                               |                                      |

# COCKPIT PREPARATION



|   |                       |  |  |
|---|-----------------------|--|--|
| <b>ALL WHITE LIGHTS</b>                       | <b>EXTINGUISH</b>     |  |  |
| <i>RCDR GND CTL pb-sw (NI)</i>                | <i>ON</i>             |  |  |
| <i>CVR TEST pb (NI)</i>                       | <i>PRESS</i>          |  |  |
| <i>CAPT &amp; PURS / CAPT sw (NI)</i>         | <i>AS RQRD</i>        |  |  |
| <b>ALL IR MODE selector</b>                   | <b>NAV</b>            |  |  |
| <b>MCDU :</b>                                 |                       |  |  |
| <b>INIT A PAGE</b>                            | <b>FILL</b>           |  |  |
| <b>ADIRS POSITION INITIALIZATION</b>          | <b>AS APPROPRIATE</b> |  |  |
| <b>EXTERIOR LIGHTS</b>                        | <b>SET</b>            |  |  |
| <b>SIGNS</b>                                  | <b>SET</b>            |  |  |
| <b>PROB/WINDOW HEAT</b>                       | <b>AUTO</b>           |  |  |
| LDG ELEV                                      | AUTO                  |  |  |
| <b>PACK FLOW :</b>                            |                       |  |  |
| <b>LO = less than 115 pax</b>                 |                       |  |  |
| <b>NORM = 115 pax or more</b>                 | <b>AS RQRD</b>        |  |  |
| <b>HI = abnormal hot and humid conditions</b> |                       |  |  |
| ELEC panel                                    | CHECK                 |  |  |
| BAT   | CHECK                 |  |  |
| ENG FIRE                                      | CHECK / TEST          |  |  |
| <i>AUDIO SWITCH (NI)</i>                      | <i>NORM</i>           |  |  |
| VENT panel                                    | CHECK                 |  |  |
| PA (3rd Occupant on overhead)                 | RECEPT                |  |  |
| MAINTENANCE panel                             | CHECK                 |  |  |
| ISIS  | CHECK                 |  |  |
| CLOCK   | CHECK / SET           |  |  |
| <b>A/SKID &amp; N/W STRG sw</b>               | <b>ON</b>             |  |  |
| <b>ACP</b>                                    | <b>CHECK</b>          |  |  |
| SWITCHING PANEL                               | NORM                  |  |  |
| <b>THRUST LEVERS</b>                          | <b>CHECK IDLE</b>     |  |  |
| ENG MASTERS                                   | CHECK OFF             |  |  |
| ENG MODE selector                             | CHECK NORM            |  |  |
| GRAVITY GEAR EXTN                             | CHECK STOWED          |  |  |
| ATC   | AUTO                  |  |  |
| <b>RMP SET BY MASTER (SMARTCOPILOT)</b>       |                       |  |  |
| <b>NAV CHARTS CLIPBOARD</b>                   | <b>PREPARE</b>        |  | <b>NAV CHARTS CLIPBOARD</b> <b>PREPARE</b> |
|   |                       |  | <b>REQUEST CLEARANCE</b> <b>OBTAIN</b>     |
|   |                       |  | <b>TRANSPONDER</b> <b>SET</b>              |
| <b>MCDU</b>                                   | <b>PREPARE</b>        |  | <b>MCDU</b> <b>CHECK</b>                   |
| <b>BAROMETRIC REFERENCE</b>                   | <b>SET</b>            |  | <b>BAROMETRIC REFERENCE</b> <b>SET</b>     |
| <b>FD</b>                                     | <b>CHECK ON</b>       |  | <b>FD</b> <b>CHECK ON</b>                  |
| LS/ILS  | AS RQRD               |  | LS/ILS      AS RQRD                        |
| ND mode and range                             | AS RQRD               |  | ND mode and range      AS RQRD             |
| VOR / ADF selector                            | AS RQRD               |  | VOR / ADF selector      AS RQRD            |
| <b>FCU</b>                                    | <b>SET</b>            |  |  |
| OXY MASK                                      | TEST                  |  | OXY MASK      TEST                         |
| PFD-ND brightness                             | AS RQRD               |  | PFD-ND brightness      AS RQRD             |
| LOUDSPEAKER knob                              | SET                   |  | LOUDSPEAKER knob      SET                  |
| PFD-ND  | CHECK                 |  | PFD-ND      CHECK                          |
| LDG ELEV (ECAM)                               | CHECK AUTO            |  | IRS ALIGN      CHECK                       |
| <b>ECAM STATUS</b>                            | <b>CHECK</b>          |  |  |
| <b>TAKEOFF BRIEFING</b>                       | <b>PERFORM</b>        |  |  |

## BEFORE PUSHBACK OR START

|                   |        |  |                       |              |
|-------------------|--------|--|-----------------------|--------------|
| FINAL LOADSHEET   | CHECK  |  | FINAL LOADSHEET       | CHECK        |
| FOB               | CHECK  |  | FOB                   | CHECK        |
| MCDU PERF TO page | SELECT |  | MCDU F-PLN page       | SELECT       |
|                   |        |  | APU FIRE              | CHECK / TEST |
|                   |        |  | APU                   | START        |
|                   |        |  | APU BLEED             | ON           |
|                   |        |  | EXT PWR DISCONNECTION | REQUEST      |

### BEFORE START C/L down to the line .....COMPLETE

|                 |              |  |                            |                   |
|-----------------|--------------|--|----------------------------|-------------------|
|                 |              |  | PUSHBACK / START CLEARANCE | OBTAIN            |
|                 |              |  | ATC                        | SET FOR OPERATION |
| WINDOWS / DOORS | CHECK CLOSED |  | WINDOWS / DOORS            | CHECK CLOSED      |
| SLIDES          | CHECK ARMED  |  | SLIDES                     | CHECK ARMED       |
| EXTERIOR LIGHTS | SET          |  |                            |                   |
| THRUST LEVERS   | IDLE         |  |                            |                   |
| ACCU PRESS      | CHECK        |  |                            |                   |
| NW STRG DISC    | AS RQRD      |  |                            |                   |
| PARK BRK        | ON           |  |                            |                   |
| CHOCKS          | OFF          |  |                            |                   |

### BEFORE START C/L below the line.....COMPLETE

## ENGINE START POWER

|                                       |           |  |                                       |            |
|---------------------------------------|-----------|--|---------------------------------------|------------|
| ENG MODE selector                     | IGN/START |  |                                       |            |
| ENG N 2 START                         | ANNOUNCE  |  |                                       |            |
| ENG MASTER N 2 ON ENG IDLE PARAMETERS | CHECK     |  | ENG MASTER N 2 ON ENG IDLE PARAMETERS | MONITORING |
| ENG 2 START                           | ANNOUNCE  |  |                                       |            |
| REPEAT THE START SEQUENCE             |           |  |                                       |            |

## AFTER START POWER

|                     |                     |  |              |       |
|---------------------|---------------------|--|--------------|-------|
| ENG MODE selector   | NORM                |  |              |       |
| APU BLEED pb-sw     | OFF                 |  | GND SPOILERS | ARM   |
| ENG ANTI ICE pb-sw  | AS RQRD             |  | RUD TRIM     | ZERO  |
| WING ANTI ICE pb-sw | AS RQRD             |  | FLAPS        | SET   |
| APU MASTER SW       | AS RQRD             |  | PITCH TRIM   | SET   |
| ECAM STATUS         | CHECK               |  | ECAM STATUS  | CHECK |
| N/W STEER DISC MEMO | CHECK NOT DISPLAYED |  |              |       |
|                     |                     |  |              |       |

### AFTER START C/L.....COMPLETE


**TAXI** 

|  |   |
|--|---|
| <b>EXTERIOR LIGHTS</b> <b>SET</b>                        | <b>TAXI CLEARANCE</b> <b>OBTAIN</b>                     |
| <b>PARKING BRAKE handle</b> <b>OFF</b>                   | BRAKES PRESSURE                      CHECK AT ZERO      |
| THRUST LEVERS                      AS RQRD               |   |
| <b>BRAKE</b> <b>CHECK</b>                                |   |
| TILLER or RUDDER PEDALS                      USE AS RQRD |   |
| FLT CTL                      CHECK                       | FLT CTL                      CHECK                      |
|  |   |
|  |   |
|  |   |
| <b>FMS REVISED T.O PERF DATA</b> <b>CROSSCHECK</b>       | <b>FMS REVISED T.O PERF DATA</b> <b>CROSSCHECK</b>      |
| EFB/MCDU GREEN DOT                      COMPARE          |   |
|  | <b>FLAPS lever</b> <b>AS APPROPRIATE</b>                |
|  | FMS F-PLAN / SPD                      CHECK             |
|  | FCU ALT/HDG                      SET                    |
|  | BOTH FD                      CHECK ON                   |
|  | PFD/ND                      CHECK                       |
|  |   |
| PFD/NDCHECK                      CHECK                   |   |
| <b>TAKEOFF BRIEFING</b> <b>CONFIRM</b>                   | RADAR                      ON                           |
|  |   |
|  | <b>ATC CODE / MODE</b> <b>CONFIRM / SET FOR TAKEOFF</b> |
|  |   |
| TERR ON ND                      AS RQRD                  | TERR ON ND                      AS RQRD                 |
|  | <b>AUTO BRK</b> <b>MAX</b>                              |
|  | <b>T.O CONFIG pb</b> <b>TEST</b>                        |
|  | <b>T.O MEMO</b> <b>CHECK NO BLUE</b>                    |

**BEFORE TAKEOFF C/L down to the line .....COMPLETE** 

**BEFORE TAKEOFF**

|   |   |
|---|---|
|   | BRAKE TEMP (if brake fan running)                      CHECK    |
|   | BRAKE FAN pb-sw (if brake fan running)                      OFF |
|   | <b>TAKEOFF / LINE UP CLEARANCE</b> <b>OBTAIN</b>                |
|   | <b>TCAS Mode selector</b> <b>TA or TA/RA</b>                    |
| APPROACH PATH                      CLEARED OF TRAFFIC | APPROACH PATH                      CLEARED OF TRAFFIC           |
|   | CABIN CREW                      ADVISE                          |
|   | <b>ENG MODE selector</b> <b>AS RQRD</b>                         |
| SLIDING TABLE                      STOW               | SLIDING TABLE                      STOW                         |
| THRUST BUMP                      AS RQRD              |   |
|   |   |
| <b>TAKEOFF RUNWAY</b> <b>CONFIRM</b>                  | <b>TAKEOFF RUNWAY</b> <b>CONFIRM</b>                            |
|   | PACKS 1+2                      AS RQRD                          |

**BEFORE TAKEOFF C/L below the line .....COMPLETE** 

## TAKEOFF

|  |             |                                 |                 |
|--|-------------|---------------------------------|-----------------|
|  |             | TAKEOFF CLEARANCE               | OBTAIN          |
| EXTERIOR LIGHTS  | SET         |                                 |                 |
| TAKEOFF  | ANNOUNCE    |                                 |                 |
| BRAKES : RELEASE THRUST LEVERS                           | FLX or TOGA | CHRONO                          | START           |
| <b>The Captain places hand on thrust levers until V1</b> |             |                                 |                 |
| DIRECTIONAL CONTROL                                      | USE RUDDER  |                                 |                 |
| FMA  | ANNOUNCE    | PFD/ND                          | MONITOR         |
| <b>•BELOW 80 kt:</b>                                     |             | <b>N1 (EPR)</b>                 | <b>CHECK</b>    |
|  |             | <b>THRUST SET</b>               | <b>ANNOUNCE</b> |
|  |             | <b>PFD and ENG indications</b>  | <b>MONITOR</b>  |
| <b>•AT 100 kt:</b>                                       |             | <b>ONE HUNDRED KNOTS</b>        | <b>ANNOUNCE</b> |
| 100 kt   | CHECK       |                                 |                 |
| <b>•AT V1:</b>   |             | <b>V1</b>                       | <b>ANNOUNCE</b> |
| <b>•AT VR:</b>   |             | <b>ROTATION</b>                 | <b>ORDER</b>    |
| ROTATION   | PERFORM     |                                 |                 |
| <b>WHEN POSITIVE CLIMB:</b>                              |             | <b>POSITIVE CLIMB</b>           | <b>ANNOUNCE</b> |
| L/G UP   | ORDER       | L/G                             | SELECT UP       |
| AP   | AS RQRD     |                                 |                 |
| <b>•AT THR RED ALT:</b>                                  |             | <b>PACK 1+2 (if applicable)</b> | <b>ON</b>       |
| THRUST LEVERS  | CL          |                                 |                 |
| <b>•AT F SPEED:</b>                                      |             | <b>FLAPS 1</b>                  | <b>SELECT</b>   |
| FLAPS 1  | ORDER       |                                 |                 |
| <b>•AT S SPEED:</b>                                      |             | <b>FLAPS 0</b>                  | <b>SELECT</b>   |
| FLAPS 0  | ORDER       |                                 |                 |
|  |             | GND SPLRS                       | DISARM          |
|  |             | EXTERIOR LIGHTS                 | SET             |

## AFTER TAKEOFF

|   |  |                    |         |
|---|--|--------------------|---------|
|   |  | APU BLEED pb-sw    | AS RQRD |
|   |  | APU MASTER SW      | AS RQRD |
|   |  | ENG MODE selector  | AS RQRD |
|   |  | TCAS Mode selector | TA/RA   |
|   |  | ANTI ICE pb-sw     | AS RQRD |
| <b>AFTER TAKEOFF CLIMB C/L down to the line .....COMPLETE</b> |  |                    |         |

## CLIMB ↑↑↑

|   |                       |  |                             |                  |
|---|-----------------------|--|-----------------------------|------------------|
| MCDU  | PERF CLB              |  | MCDU                        | F-PLN            |
| FCU / FMGS  | SET IF AP ON          |  | FCU / FMGS                  | SET IF AP OFF    |
| •At transition altitude:                                    |                       |  |                             |                  |
| BAROMETRIC REFERENCE  | SET STD / XCHECK      |  | BAROMETRIC REFERENCE        | SET STD / XCHECK |
| <b>AFTER TAKEOFF CLIMB C/L below the line .....COMPLETE</b> |                       |  |                             |                  |
| RADAR   | ADJUST AS APPROPRIATE |  | ENG ANTI ICE                | AS RQRD          |
| •At 10 000 ft:  |                       |  |                             |                  |
|   |                       |  | <b>LAND LIGHTS selector</b> | <b>RETRACT</b>   |
|   |                       |  | <b>SEAT BELTS sw</b>        | <b>AS RQRD</b>   |
| EFIS OPTION   | AS RQRD               |  | EFIS OPTION                 | AS RQRD          |
|   |                       |  | ECAM MEMO                   | REVIEW           |
|   |                       |  | NAVAIDS                     | CLEAR            |
|   |                       |  | <b>SEC F-PLN</b>            | <b>AS RQRD</b>   |
|   |                       |  | OPT / MAX ALT               | CHECK            |

## CRUISE

|                      |                       |  |                      |                |
|----------------------|-----------------------|--|----------------------|----------------|
| ECAM MEMO / SD PAGES | REVIEW                |  | ECAM MEMO / SD PAGES | REVIEW         |
| FLIGHT PROGRESS      | CHECK                 |  | FLIGHT PROGRESS      | CHECK          |
| <b>FUEL</b>          | <b>MONITOR</b>        |  | <b>FUEL</b>          | <b>MONITOR</b> |
| NAVIGATION ACCURACY  | MONITOR               |  | NAVIGATION ACCURACY  | MONITOR        |
| RADAR                | ADJUST AS APPROPRIATE |  |                      |                |

## DESCENT PREPARATION

|                                |                       |  |                |
|--------------------------------|-----------------------|--|----------------|
|                                |                       | <b>WEATHER AND LANDING INFORMATION</b> | <b>OBTAIN</b>  |
| NAV CHARTS CLIPBOARD           | PREPARE               | NAV CHARTS CLIPBOARD                   | PREPARE        |
| LANDING CONDITIONS             | CONFIRM               | LANDING CONDITIONS                     | CHECK          |
| •If landing conditions change: |                       |  |                |
| LANDING PERF DATA              | COMPUTE               | LANDING PERF DATA                      | COMPUTE        |
| LANDING PERF DATA              | CROSSCHECK            | LANDING PERF DATA                      | CROSSCHECK     |
| <b>FMS</b>                     | <b>PREPARE</b>        | <b>FMS PREPARATION</b>                 | <b>CHECK</b>   |
|                                |                       | GPWS LDG FLAP 3                        | AS RQRD        |
| LDG ELEV                       | CHECK                 |  |                |
| <b>AUTO BRK</b>                | <b>AS RQRD</b>        |  |                |
| APPR BRIEFING                  | PERFORM               |  |                |
| TERR ON ND                     | AS RQRD               | TERR ON ND                             | AS RQRD        |
| RADAR                          | ADJUST AS APPROPRIATE |  |                |
|                                |                       | <b>ENG ANTI ICE pb-sw</b>              | <b>AS RQRD</b> |
|                                |                       | WING ANTI ICE pb-sw                    | AS RQRD        |
| <b>CLEARED ALTITUDE ON FCU</b> | <b>SET</b>            | <b>DESCENT CLEARANCE</b>               | <b>OBTAIN</b>  |
|                                |                       |  |                |

## DESCENT

|   |                     |                             |                       |
|---|---------------------|-----------------------------|-----------------------|
| DESCENT   | INITIATE            |                             |                       |
| MCDU  | PROG / PERF DESCENT | MCDU                        | F-PLN                 |
| DESCENT   | MONITOR / ADJUST    |                             |                       |
| •When the aircraft approaches the transition level, and when cleared for an altitude: |                     |                             |                       |
|   |                     |                             |                       |
| <b>BAROMETRIC REFERENCE</b>   | <b>SET / XCHECK</b> | <b>BAROMETRIC REFERENCE</b> | <b>SET / XCHECK</b>   |
|   |                     | ECAM STATUS                 | CHECK                 |
| •At 10 000 ft:  |                     |                             |                       |
|   |                     | <b>LAND LIGHTS sw</b>       | <b>SET</b>            |
|   |                     | <b>SEAT BELTS sw</b>        | <b>ON</b>             |
| EFIS option pb  | .CSTR               | EFIS option pb              | CSTR                  |
| <b>LS pb</b>  | <b>AS RQRD</b>      | <b>LS pb</b>                | <b>AS RQRD</b>        |
|   |                     | <b>RADIO NAV</b>            | <b>SELECT / IDENT</b> |
|   |                     | ENG MODE selector           | AS RQRD               |
| •If GPS PRIMARY not available:  |                     |                             |                       |
| NAV ACCY  | CHECK               |                             |                       |
| <b>APPROACH CHECKLIST ..... COMPLETE</b>  |                     |                             |                       |



## AIRCRAFT CONFIGURATION FOR APPROACH

|   |                       |  |                  |
|---|-----------------------|--|------------------|
| INITIAL APPROACH                                  |                       |  |                  |
| F-PLN SEQUENCING                                  | ADJUST                |  |                  |
| •Approx 15 NM from touchdown:                     |                       |  |                  |
| <i>APPR PHASE ..... ACTIVATE or set green dot</i> |                       |  |                  |
| MANAGED SPEED                                     | CHECK                 |  |                  |
| FLIGHT PATH                                       | MONITOR               | <i>NAV ACCURACY</i>                              | <i>MONITOR</i>   |
| SPEED BRAKES lever                                | AS RQRD               |  |                  |
| RADAR   | ADJUST AS APPROPRIATE |  |                  |
| INTERMEDIATE / FINAL APPROACH:                    |                       |  |                  |
| •At green dot:                                    |                       |  |                  |
| FLAPS 1   | ORDER                 | FLAPS 1  | SELECT           |
| <i>SPEED..... CHECK OR SET</i>                    |                       |  |                  |
|   |                       | TCAS   | TA or TA/RA      |
| •At 2 000 ft AGL minimum:                         |                       |  |                  |
| FLAPS N   | ORDER                 | FLAPS N  | SELECT           |
| <i>F SPEED..... CHECK OR SET</i>                  |                       |  |                  |
| When FLAPS 2:                                     |                       |  |                  |
| /G DOWN   | ORDER                 | L/G  | SELECT DOWN      |
|   |                       | AUTO BRAKE                                       | CONFIRM          |
|   |                       | GRND SPLRS                                       | ARM              |
|   |                       | EXTERIOR LIGHTS                                  | SET              |
| •When LIG down:                                   |                       |  |                  |
| FLAPS 3   | ORDER                 | FLAPS 3  | SELECT           |
|   |                       | ECAM WHEEL PAGE                                  | .CHECK           |
| •When FLAPS 3:                                    |                       |  |                  |
| FLAPS FULL  | ORDER                 | FLAPS FULL                                       | SELECT           |
| <i>SPEED TARGET..... CHECK OR SET</i>             |                       |  |                  |
|   |                       | A/THR  | CHECK SPD or OFF |
|   |                       | WING A. ICE (if not required)                    | OFF              |
| SLIDING TABLE                                     | STOW                  | SLIDING TABLE                                    | STOW             |
| ALL EFB (with no mounted equipment)               | STOW                  | ALL EFB (with no mounted equipment)              | STOW             |
|   |                       | LDG MEMO   | CHECK NO BLUE    |
| CABIN REPORT                                      | RECEIVE               | CABIN REPORT                                     | RECEIVE          |
| <b>LANDING CHECKLIST ..... COMPLETE</b>           |                       |  |                  |
| ANNOUNCE ANY FMA MODIFICATION                     |                       | FLT PARAMETERS                                   | MONITOR          |
|   |                       | Announce any deviation in excess of:             |                  |
|   |                       | • V/S: 1 000 ft/min                              |                  |
|   |                       | • IAS: speed target h 10 kt; speed target - 5 kt |                  |
|   |                       | • PITCH: N.5 ° nose down; 10 ° nose up           |                  |
|   |                       | • BANK: 7 °                                      |                  |

## APPROACH USING LOC GIS GUIDANCE

|  |                             |                                   |
|--|-----------------------------|-----------------------------------|
| DESCENT PREPARATION:                         |                             |                                   |
| APPROACH MINIMUM                             | DETERMINE                   |                                   |
| APPROACH BRIEFING                            | PERFORM                     |                                   |
| INITIAL / INTERMEDIATE APPROACH:             |                             |                                   |
| <b>APPR pb on FCU</b>                        | <b>PRESS</b>                |                                   |
| <b>BOTH AP</b>                               | <b>ENGAGE</b>               |                                   |
| <b>LOC</b>                                   | <b>CHECK ARMED</b>          |                                   |
| <b>G/S</b>                                   | <b>CHECK ARMED</b>          |                                   |
| <b>LOC CAPTURE</b>                           | <b>MONITOR</b>              |                                   |
| <b>G/S CAPTURE</b>                           | <b>MONITOR</b>              |                                   |
| GO AROUND ..... SET                          |                             |                                   |
| FINAL APPROACH:                              |                             |                                   |
|  |                             | FLT PARAMETERS                    |
|  |                             | MONITOR                           |
| Announce any deviation in excess of:         |                             |                                   |
| • LOC: ½ dot                                 |                             |                                   |
| • GLIDE: ½ dot                               |                             |                                   |
|  |                             |                                   |
| •At 350 ft :                                 |                             |                                   |
| LAND mode                                    | CHECK ENGAGED /<br>ANNOUNCE |                                   |
| For CATI, CATII and CATIII with DH approach: |                             |                                   |
| •At minimum h100 ft:                         |                             |                                   |
|  |                             |                                   |
| •At minimum:                                 |                             |                                   |
| <b>CONTINUE OR GO-AROUND</b>                 | ANNOUNCE                    | MONITOR OR<br>ANNOUNCE            |
| For CATIII with no DH approach:              |                             |                                   |
| •At 100 ft RA:                               |                             |                                   |
| If no failure detected                       |                             |                                   |
| <b>CONTINUE</b>                              | ANNOUNCE                    | <b>MINIMUM</b><br><b>ANNOUNCE</b> |

## APPROACH USING FINAL APP GUIDANCE

|  |                               |
|--|-------------------------------|
| DESCENT PREPARATION:                     |                               |
|  |                               |
| F-PLN A Page                             | CHECK                         |
| PROG Page                                | COMPLETE                      |
| GO AROUND STRATEGY                       | REVIEW                        |
| DESCENT:                                 |                               |
| •At 10 000 ft:                           |                               |
| NAV ACCURACY                             | CHECK                         |
| •For RNAV(GNSS):                         |                               |
| GPS PRIMARY                              | CHECK                         |
| BARO REF                                 | SET                           |
| INITIAL / INTERMEDIATE / FINAL APPROACH: |                               |
| POSITION                                 | MONITOR                       |
| <b>APPR pb on FCU</b>                    | <b>PRESS</b>                  |
| <b>APP NAV</b>                           | <b>CHECK ARMED or ENGAGED</b> |
| <b>FINAL</b>                             | <b>CHECK ARMED</b>            |
| •At Final Descent Point:                 |                               |
| FINAL APP                                | CHECK ENGAGED                 |

|                          |          |
|--------------------------|----------|
| WEATHER AND LANDING INFO | OBTAIN   |
| F-PLN A Page             | CHECK    |
| PROG Page                | COMPLETE |

|                              |                                      |                            |
|------------------------------|--------------------------------------|----------------------------|
| GO AROUND ALT..... SET       |                                      |                            |
|                              | FLT PARAMETERS                       | MONITOR                    |
|                              | Announce any deviation in excess of: |                            |
|                              | • XTK > 0.1 NM                       |                            |
|                              | • V/DEV > ½ dot                      |                            |
| At minimum h100 ft:          | ONE HUNDRED ABOVE                    | MONITOR OR ANNOUNCE        |
| •At minimum:                 |                                      |                            |
| <b>CONTINUE OR GO-AROUND</b> | <b>ANNOUNCE</b>                      |                            |
|                              | <b>MINIMUM</b>                       | <b>MONITOR OR ANNOUNCE</b> |

## APPROACH USING FPA GUIDANCE

|  |                         |  |                        |
|--|-------------------------|--|------------------------|
| DESCENT PREPARATION:                     |                         |  |                        |
| F-PLN A Page                             | CHECK                   | F-PLN A Page                             | CHECK                  |
| PROG Page                                | COMPLETE                | PROG Page                                | COMPLETE               |
| GO AROUND STRATEGY                       | REVIEW                  |  |                        |
| DESCENT:                                 |                         |  |                        |
| •At 10 000 ft:                           |                         |  |                        |
| NAV ACCURACY                             | CHECK                   |  |                        |
| •For RNAV(GNSS):                         |                         |  |                        |
| GPS PRIMARY                              | CHECK                   |  |                        |
| INITIAL / INTERMEDIATE / FINAL APPROACH: |                         |  |                        |
| LATERAL GUIDANCE MODE                    | SET FOR APPROACH        |  |                        |
| •For LOC ONLY and ILS GIS OUT            |                         |  |                        |
| <b>LOC pb-sw</b>                         | <b>PRESS</b>            |  |                        |
| <b>LOC</b>                               | <b>CHECK ARMED</b>      |  |                        |
| •For back course localizer approaches:   |                         |  |                        |
| <b>TRK FPA MODE</b>                      | <b>USE FOR APPROACH</b> |  |                        |
| LATERAL path                             | INTERCEPT               |  |                        |
| TRK FPA (Bird)                           | SELECT                  |  |                        |
| FPA FOR FINAL APPROACH                   | SET                     |  |                        |
| •At 0.3 NM from the Final Descent Point: |                         |  |                        |
| FPA selector                             | PULL                    |  |                        |
| FPA                                      | CHECK ENGAGED           |  |                        |
| POSITION / FLT PATH                      | MONITOR / ADJUST        |  |                        |
| GO AROUND ALT.....SET                    |                         |  |                        |
|  |                         | FLT PARAMETERS                           | MONITOR                |
|  |                         | Announce any deviation in excess of:     |                        |
|  |                         | • Approach using NAV MODE : XTK > 0.1 NM |                        |
|  |                         | • Approach using LOC MODE : LOC ½ dot    |                        |
|  |                         | • Approach using TRK MODE :              |                        |
|  |                         | . VOR: ½ dot or N.5 °                    |                        |
|  |                         | . NDB: 5 °                               |                        |
|  |                         | ONE HUNDRED ABOVE                        | MONITOR OR<br>ANNOUNCE |
| •At minimum h100 ft:                     |                         |  |                        |
| •At minimum:                             |                         |  |                        |
| <b>CONTINUE OR GO-AROUND</b>             | <b>ANNOUNCE</b>         | <b>MINIMUM</b>                           | <b>ANNOUNCE</b>        |

## MANUAL LANDING

|   |                            |                      |                         |
|---|----------------------------|----------------------|-------------------------|
| •In stabilized approach conditions, at approx. 30 ft: |                            |                      |                         |
| FLARE   | PERFORM                    | ATTITUDE             | MONITOR                 |
| <b>THRUST LEVERS</b>                                  | <b>IDLE</b>                |                      |                         |
| •At touchdown:  |                            |                      |                         |
| DEROTATION  | INITIATE                   |                      |                         |
| <b>BOTH THRUST LEVERS</b>                             | <b>REV MAX or REV IDLE</b> | <b>GRND SPLRS</b>    | <b>CHECK / ANNOUNCE</b> |
|   |                            | <b>REVERSERS</b>     | <b>CHECK / ANNOUNCE</b> |
| DIRECTIONAL CONTROL                                   | ENSURE                     | DIRECTIONAL CONTROL  | MONITOR                 |
| BRAKES  | AS RQRD                    | DECELERATION         | CHECK / ANNOUNCE        |
| •At 70 kt:  |                            |                      |                         |
| <b>BOTH THRUST LEVERS</b>                             | <b>REV IDLE</b>            | <b>SEVENTY KNOTS</b> | <b>ANNOUNCE</b>         |
| •At taxi speed:                                       |                            |                      |                         |
| <b>BOTH THRUST LEVERS</b>                             | <b>FWD IDLE</b>            |                      |                         |
| •Before 20 kt:  |                            |                      |                         |
| <b>AUTOBRK</b>  | <b>DISENGAGE</b>           |                      |                         |

## AUTOLAND

|                                      |                            |  |  |
|--------------------------------------|----------------------------|--|--|
| •At 350 ft RA                        |                            |  |  |
| ILS/GLS 8 /MLS 8 COURSE ON PFD       | CHECK                      |  |  |
| •At 40 ft RA                         |                            |  |  |
|                                      |                            |  |  |
| •At 30 ft RA                         |                            |  |  |
|                                      |                            |  |  |
| •At 10 ft RA : autocalllout "RETARD" |                            |  |  |
| <b>BOTH THRUST LEVERS</b>            | <b>IDLE</b>                |  |  |
| LATERAL GUIDANCE                     | MONITOR                    |  |  |
| •At TOUCH DOWN                       |                            |  |  |
|                                      |                            |  |  |
| <b>BOTH THRUST LEVERS</b>            | <b>REV MAX OR REV IDLE</b> |  |  |
|                                      |                            |  |  |
| DIRECTIONAL CONTROL                  | MONITOR / ENSURE           |  |  |
| BRAKES                               | AS RQRD                    |  |  |
| •At 70 kt :                          |                            |  |  |
|                                      |                            |  |  |
| <b>BOTH THRUST LEVERS</b>            | <b>REV IDLE</b>            |  |  |
| •Before 20 kt:                       |                            |  |  |
| <b>AUTO BRK</b>                      | <b>DISENGAGE</b>           |  |  |
| •End of roll out                     |                            |  |  |
| <b>BOTH THRUST LEVERS</b>            | <b>FWD IDLE</b>            |  |  |
| AP                                   | OFF                        |  |  |

|                      |                          |
|----------------------|--------------------------|
| Monitor auto callout |                          |
|                      |                          |
| FLARE mode           | CHECK ENGAGED / ANNOUNCE |
|                      |                          |
| THRUST IDLE mode     | CHECK                    |
|                      |                          |
|                      |                          |
| ROLL OUT mode        | CHECK ENGAGED / ANNOUNCE |
|                      |                          |
| GRND SPLRS           | CHECK / ANNOUNCE         |
| REVERSERS            | CHECK / ANNOUNCE         |
| DIRECTIONAL CONTROL  | MONITOR                  |
|                      |                          |
| DECELERATION         | CHECK / ANNOUNCE         |
|                      |                          |
| SEVENTY KNOTS        | ANNOUNCE                 |
|                      |                          |

## GO AROUND

|                      |              |  |   |
|----------------------|--------------|--|---|
| <b>THRUST LEVERS</b> | <b>TOGA</b>  |  |   |
| ROTATION             | PERFORM      |  |   |
| GO-AROUND            | ANNOUNCE     |  | FLAPS lever                      SELECT AS RQRD |
| FMA                  | ANNOUNCE     |  |   |
|                      |              |  | POSITIVE CLIMB                      ANNOUNCE    |
| <b>L/G UP</b>        | <b>ORDER</b> |  | <b>L/G</b> <b>UP</b>                            |
| AP                   | AS RQRD      |  |   |
| NAV or HDG mode      | AS RQRD      |  |   |
| •AT GA THR RED ALT:  |              |  |   |
| <b>THRUST LEVERS</b> | <b>CL</b>    |  |   |
| •AT GA ACCEL ALT:    |              |  |   |
| SPEED                | MONITOR      |  |   |
| •AT F SPEED:         |              |  |   |
| <b>FLAPS 1</b>       | <b>ORDER</b> |  | <b>FLAPS 1</b> <b>SELECT</b>                    |
| •AT S SPEED:         |              |  |   |
| <b>FLAPS 0</b>       | <b>ORDER</b> |  | <b>FLAPS 0</b> <b>SELECT</b>                    |
|                      |              |  | <b>GND SPLRS</b> <b>DISARM</b>                  |
|                      |              |  | <b>EXTERIOR LIGHTS</b> <b>SET</b>               |

**AFTER TAKEOFF CLIMB C/L down to the line .....COMPLETE**



## AFTER LANDING



|                                   |        |  |                          |
|-----------------------------------|--------|--|--------------------------|
| GRND SPLRS                        | DISARM |  |                          |
| EXTERIOR LIGHTS                   | SET    |  |                          |
|                                   |        |  | <b>RADAR</b> OFF         |
|                                   |        |  | PREDICTIVE WINDSHEAR OFF |
|                                   |        |  | ENG MODE selector NORM   |
|                                   |        |  | <b>FLAPS</b> RETRACT     |
|                                   |        |  | <b>TCAS</b> STBY         |
|                                   |        |  | <b>ATC</b> AS RQRD       |
|                                   |        |  | <b>APU</b> START         |
|                                   |        |  | ANTI ICE AS RQRD         |
|                                   |        |  | BRAKE TEMP CHECK         |
| <b>AFTER LDG C/L.....COMPLETE</b> |        |  |                          |



v


## PARKING



|                                 |                |  |                       |
|---------------------------------|----------------|--|-----------------------|
| ACCU PRESS                      | CHECK          |  | ANTI-ICE OFF          |
| PARKING BRAKE handle            | ON             |  | APU BLEED pb-sw ON    |
| ALL ENG MASTERS                 | OFF            |  |                       |
| SLIDES                          | CHECK DISARMED |  |                       |
| SEAT BELTS sw                   | OFF            |  | <b>FUEL PUMPS</b> OFF |
| EXTERIOR LIGHTS                 | SET            |  | <b>ATC</b> STBY       |
| GROUND CONTACT                  | ESTABLISH      |  | IRS PERFORMANCE CHECK |
| DISPLAY UNIT                    | DIM            |  | DISPLAY UNIT DIM      |
|                                 |                |  | FUEL QTY CHECK        |
|                                 |                |  | STATUS CHECK          |
| PARKING BRK                     | AS RQRD        |  | BRAKE FAN OFF         |
| <b>PARKING C/L.....COMPLETE</b> |                |  |                       |


## SECURING THE AIRCRAFT

|  |          |  |                            |
|--|----------|--|----------------------------|
| PARKING BRK                              | CHECK ON |  |                            |
| ALL IR MODE selectors                    | OFF      |  | OXY CREW SUPPLY pb OFF     |
|  |          |  | <b>EXTERIOR LIGHTS</b> OFF |
|  |          |  | MAINT BUS SW AS RQRD       |
|  |          |  | APU BLEED pb-sw OFF        |
|  |          |  | APU MASTER SW OFF          |
|  |          |  | EMER EXIT LT sw OFF        |
|  |          |  | SIGNS sw OFF               |
|  |          |  | EXT PWR pb AS RQRD         |
|  |          |  | BAT 1+2 OFF                |
| <b>SECURING THE A/C C/L.....COMPLETE</b> |          |  |                            |

| <b>BEFORE START CHECKLIST</b> |                 |  |
|-------------------------------|-----------------|---|
| COCKPITP PREP                 | COMPLETED(BOTH) |   |
| GEAR PINS and COVERS          | REMOVED         |   |
| SIGNS                         | ON/AUTO         |   |
| ADIRS                         | NAV             |   |
| FUEL QUANTITY                 | ___ KG.LB       |   |
| TO DATA                       | SET             |   |
| BARO REF                      | ___ SET (BOTH)  |   |
| WINDOWS/DOORS                 | CLOSED (BOTH)   |  |
| BEACON                        | ON              |   |
| THR LEVERS                    | IDLE            |   |
| PARKING BRAKE                 | AS RQRD         |   |
|                               |                 |   |

| <b>AFTER START CHECKLIST</b> |           |  |
|------------------------------|-----------|---|
| ANTI ICE                     | AS RQRD   |   |
| ECAM STATUS                  | CHECKED   |   |
| PITCH TRIM                   | ___ % SET |   |
| RUDDER TRIM                  | ZERO      |   |

| <b>BEFORE TAKE OFF CHECKLIST</b>  |                 |    |
|-----------------------------------|-----------------|---|
| FLIGHT CONTROLS                   | CHECKED (BOTH)  |   |
| FLT INST                          | CHECKED (BOTH)  |   |
| BRIEFING                          | CONFIRMED       |   |
| FLAP SETTING                      | CONF ___ (BOTH) |   |
| V1. VR. V2/FLX TEMP               | ___ (BOTH)      |   |
| ATC                               | SET             |   |
| ECAM MEMO                         | TO NO BLUE      |   |
| - <i>AUTO BRK MAX</i>             |                 |   |
| - <i>SIGNS ON</i>                 |                 |   |
| - <i>CABIN READY</i>              |                 |   |
| - <i>SPLRS ARM</i>                |                 |   |
| - <i>FLAPS TO</i>                 |                 |   |
| - <i>TO CONFIG NORM</i>           |                 |   |
| TAKEOFF RWY..... CONFIRMED (BOTH) |                 |  |
| CABIN CREW                        | ADVISED         |   |
| TCAS                              | TA OR TA/RA     |   |
| ENG MODE SEL                      | AS RQRD         |   |
| PACKS                             | AS RQRD         |   |

| <b>AFTER TAKE OFF / CLIMB CHECKLIST</b> |                |  |
|---|----------------|---|
| LDG GEAR                                | UP             |   |
| FLAPS                                   | RETRACTED      |   |
| PACKS                                   | ON             |   |
| BARO REF                                | ___ SET (BOTH) |   |



| <b>APPROACH CHECKLIST</b> |                  |
|---------------------------|------------------|
| BRIEFING                  | CONFIRMED        |
| ECAM STATUS               | CHECKED          |
| SEAT BELTS                | ON               |
| BARO REF                  | _____ SET (BOTH) |
| MINIMUM                   | _____ SET (BOTH) |
| ENG MODE SEL              | AS RQRD          |

| <b>LANDING CHECKLIST</b> |             |
|--------------------------|-------------|
| CABIN CREW               | ADVISED     |
| A/THR                    | SPEED/OFF   |
| AUTOBRAKE                | AS RQRD     |
| ECAM MEMO                | LDG NO BLUE |
| - LDG GEAR DN            |             |
| - SIGNS ON               |             |
| - CABIN READY            |             |
| - SPLRS ARM              |             |
| - FLAPS SET              |             |

| <b>AFTER LANDING CHECKLIST</b> |           |
|--------------------------------|-----------|
| FLAPS                          | RETRACTED |
| SPOILERS                       | DISARMED  |
| APU                            | ON        |
| RADAR                          | OFF       |
| PREDICTIVE WINDS EAT SYSTEM    | OFF       |

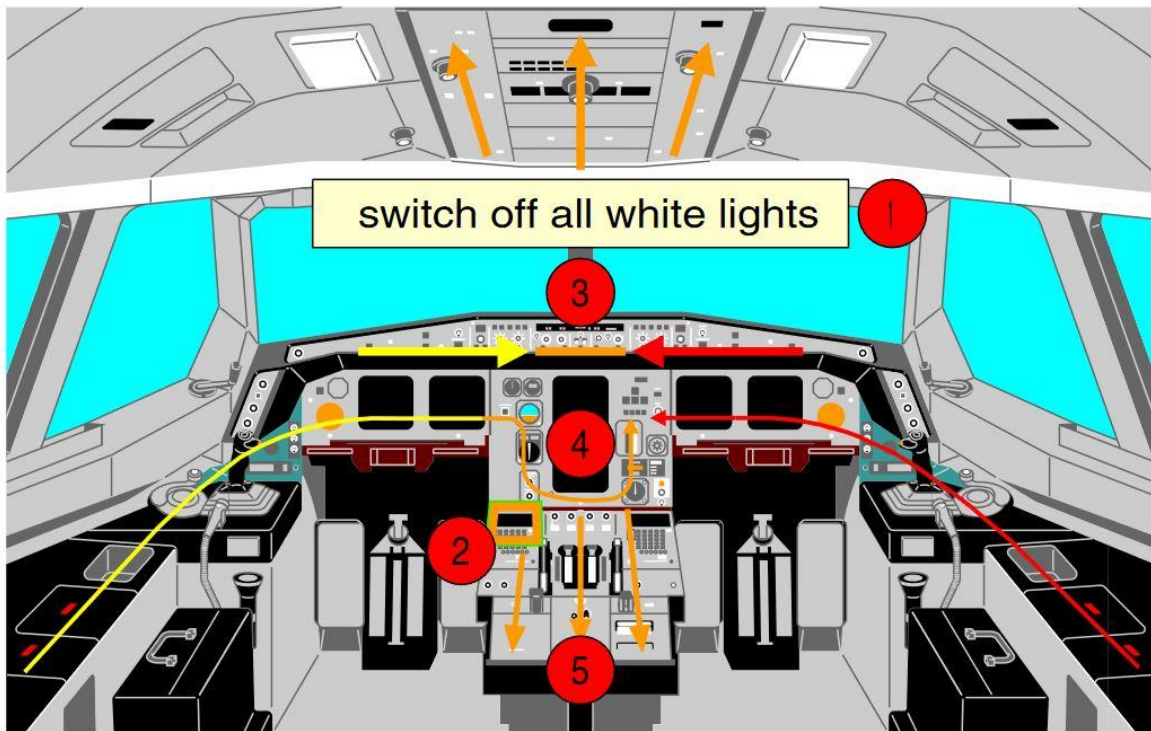
| <b>PARKING CHECKLIST</b> |         |
|--------------------------|---------|
| APU BLEED                | ON      |
| ENGINES                  | OFF     |
| SEAT BELTS               | OFF     |
| EXT LT                   | AS RQRD |
| FUEL PUMPS               | OFF     |
| PARK BRK and CHOCKS      | AS RQRD |
| Consider HEAVY RAIN      |         |

| <b>SECURING THE AIRCRAFT</b> |     |
|------------------------------|-----|
| ADIRS                        | OFF |
| OXYGEN                       | OFF |
| APU BLEED                    | OFF |
| EMER EXIT LT                 | OFF |
| NO PORTABLE/ELEC DEVICE      | OFF |
| APU AND BAT                  | OFF |
| Consider COLD WEATHER        |     |



cockpit\_preparation\_flow\_pattern

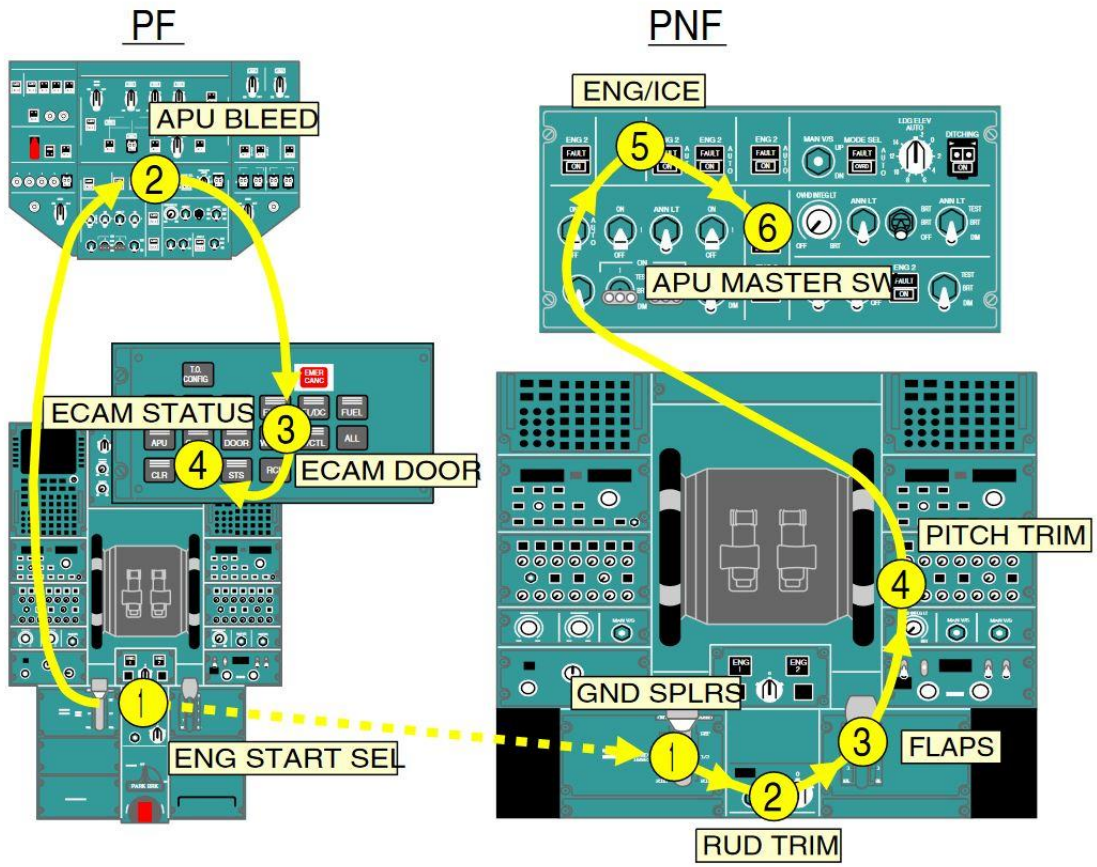
COCKPIT PREPARATION FLOW PATTERN





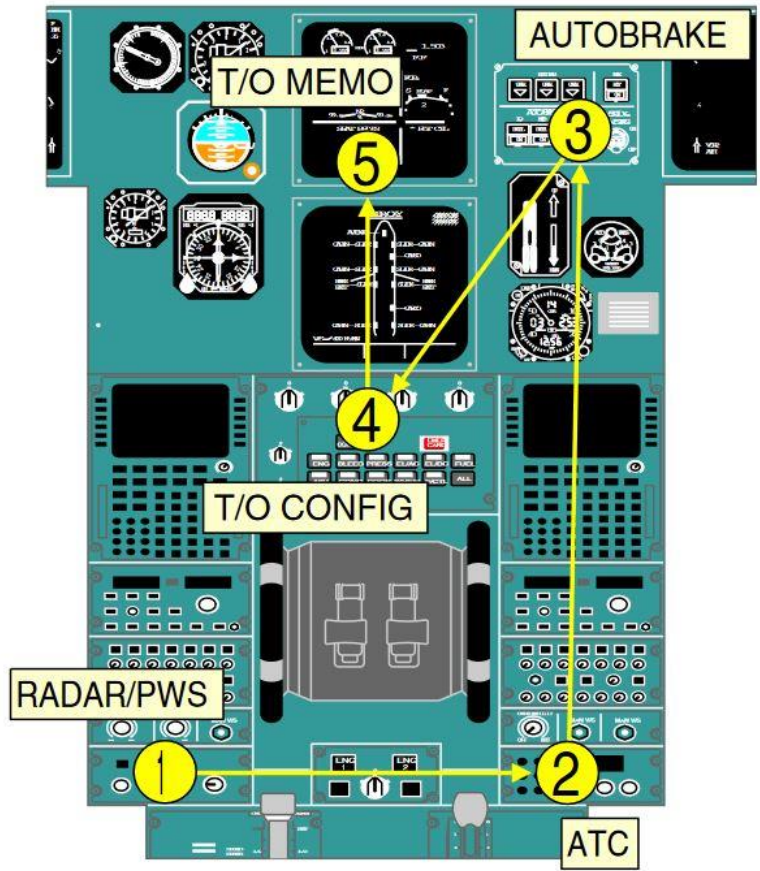
after\_start\_flow\_pattern

AFTER START FLOW PATTERN



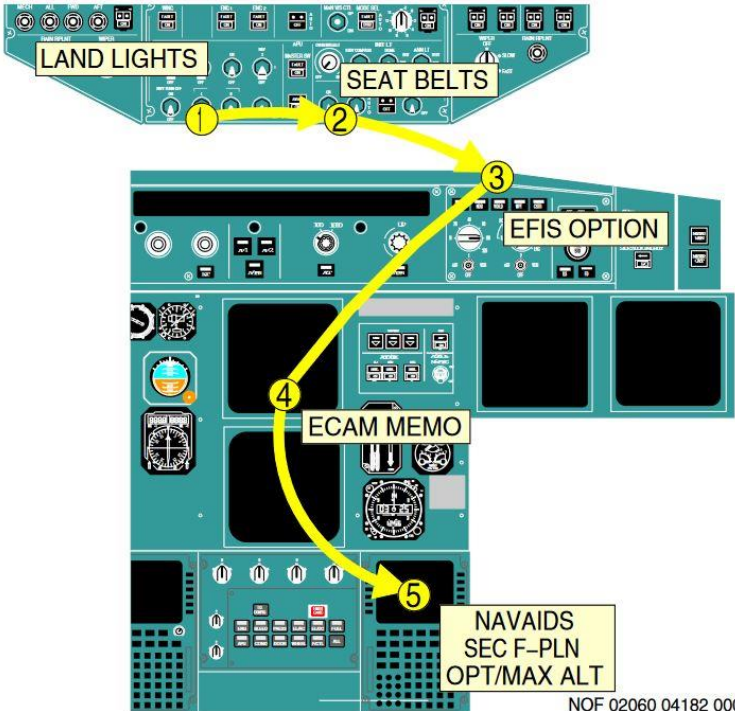


taxi\_flow\_pattern





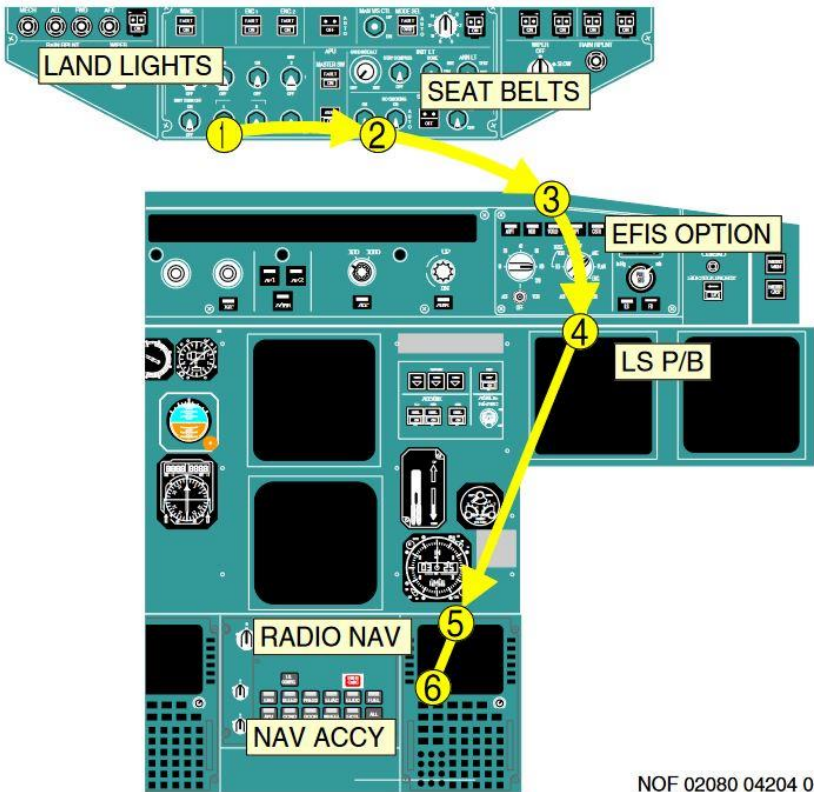
climb\_flow\_pattern



EFIS Option:  
 The PF will select CSTR for grid MORA  
 The PNF will select ARPT



10.000 FT FLOW PATTERN



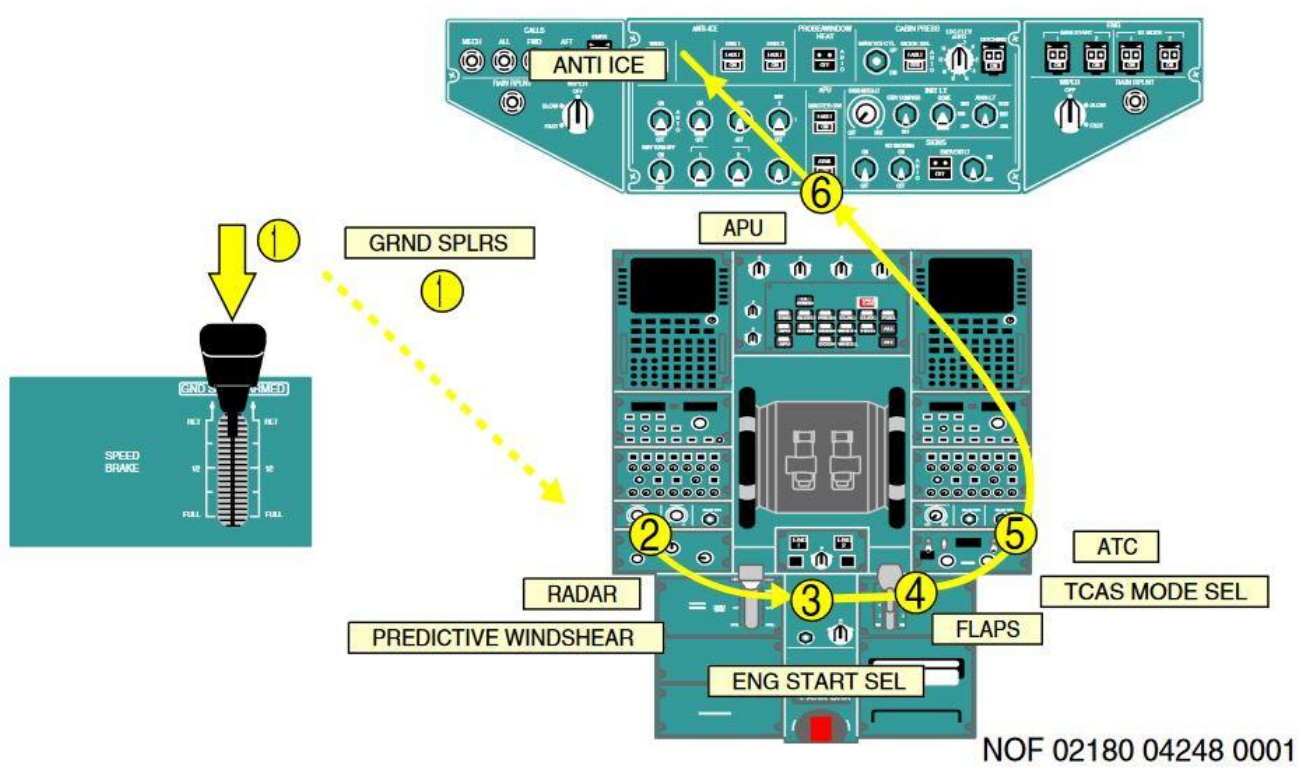
NOF 02080 04204 0001



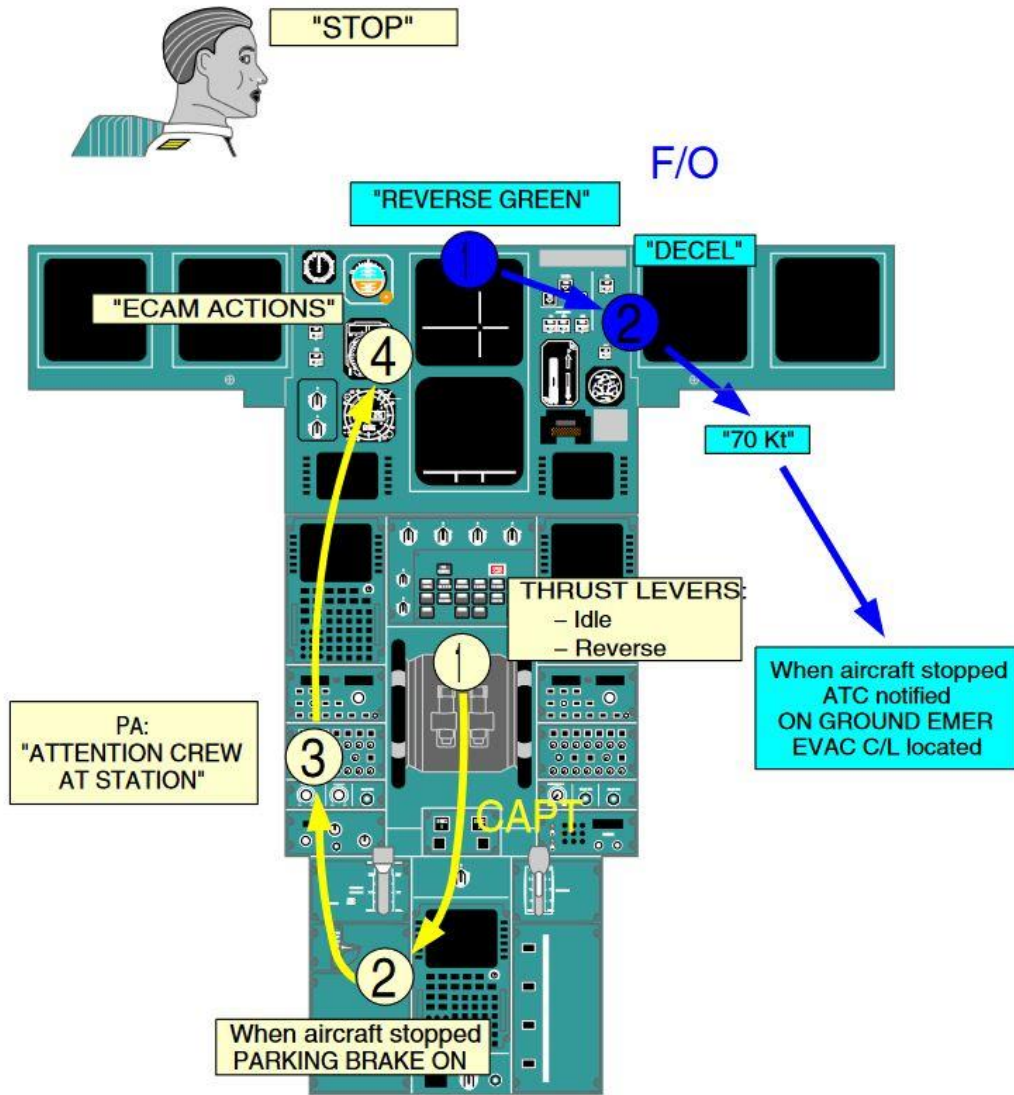
taxi\_in\_flow\_pattern

PF

PNF

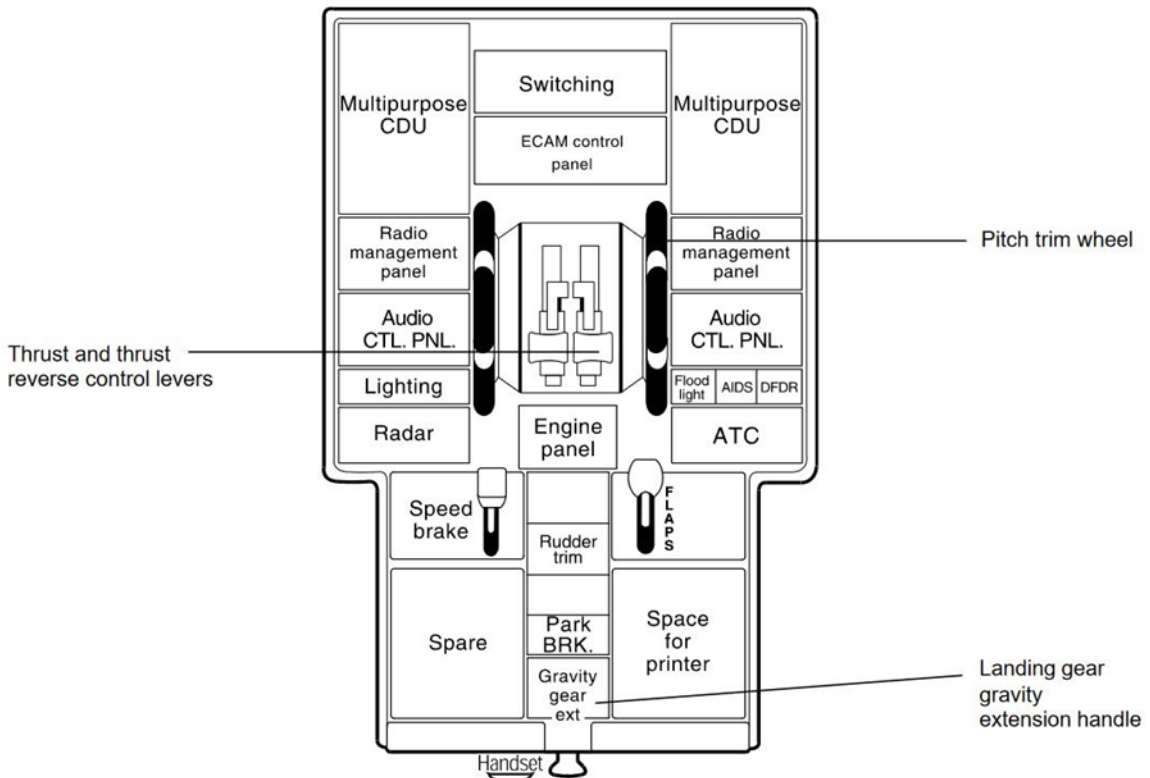
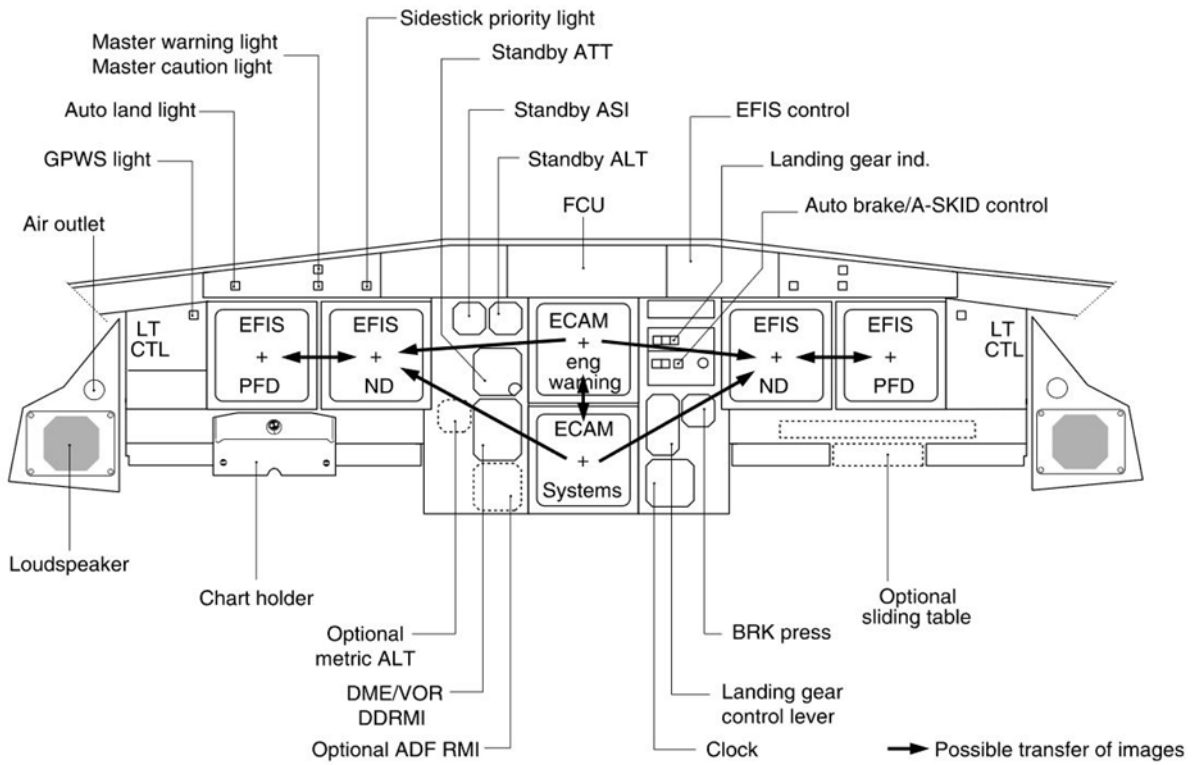


takeoff\_stop\_flow\_pattern

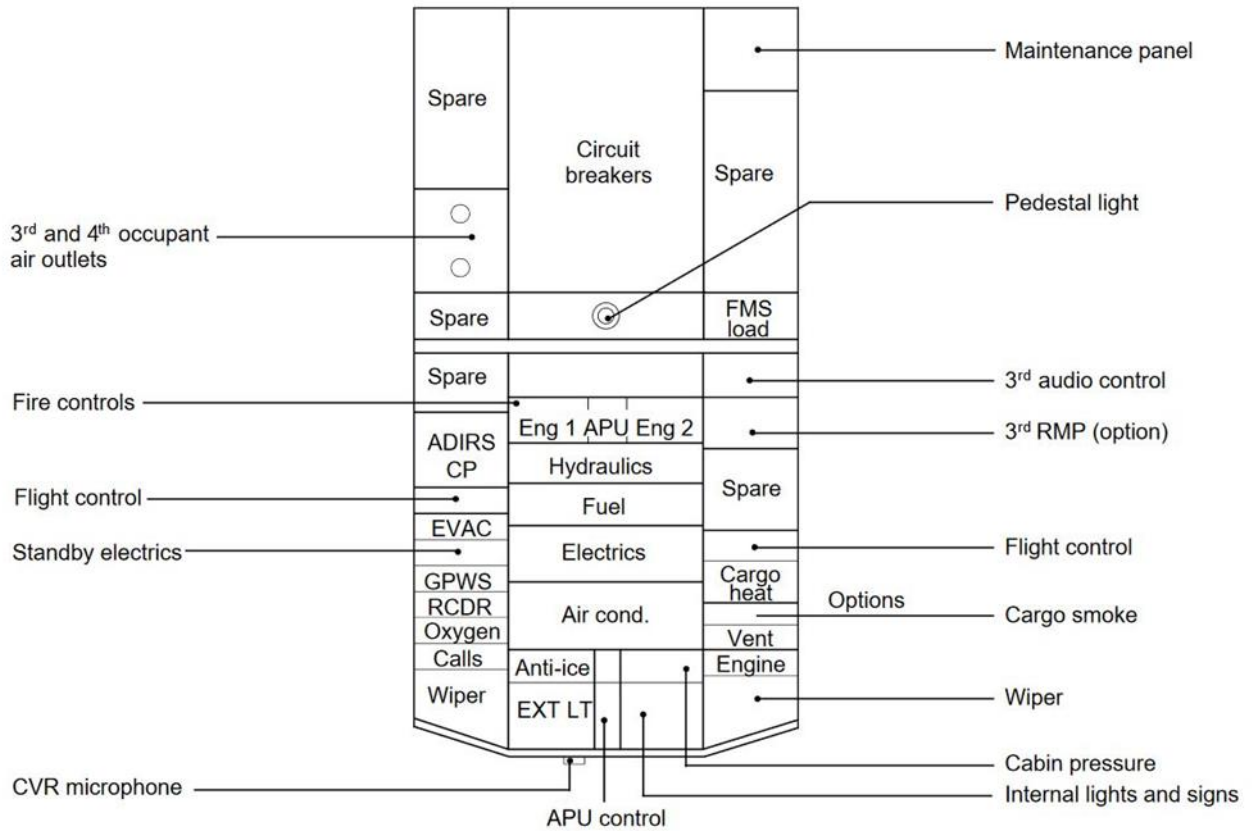

















NOF 03020 04281 0001





EMERGENCY EVACUATION










| INDICATION  | DESCRIPTION  |
|---|--|
|    | Position where the aircraft will level-off at the FCU selected altitude. The same symbol will indicate a level-off from a managed climb (CLB) or selected climb (OP CLB).  |
|    | Position where the aircraft will level-off at the constrained altitude entered in the MCDU. The managed CLB mode must be engaged for the altitude constraint symbol to appear and be honored.  |
|    | Position where the aircraft will level-off at the FCU selected altitude. The same symbol will indicate a level-off from a managed descent (DES) or selected descent (OP DES).  |
|    | Position where the aircraft will level-off at the constrained altitude entered in the MCDU. The managed DES mode must be engaged for the altitude constraint symbol to appear and be honored.  |
|    | Start of climb with the CLB mode armed.  |
|    | Start of climb with the CLB mode <u>not</u> armed.   |
|    | Top of Descent or continue descent with DES armed.   |
|    | Top of Descent or continue descent with DES <u>not</u> armed.  |
|    | Intercept point where the aircraft is predicted to intercept the FMGS computed vertical descent profile. The indicator is blue indicating the DES mode is engaged.   |
|    | Intercept point where the aircraft will meet the FMGS computed vertical profile. The indicator is white indicating the DES mode is not engaged.  |
|    | <ul style="list-style-type: none"> <li>• Flight Plan Waypoint</li> <li>• FMGC Database Waypoint: Displayed when the waypoint pb is pressed on the EFIS control panel.</li> <li>• "TO" Waypoint.</li> </ul>   |
|    | <b>Speed Change</b> <ul style="list-style-type: none"> <li>• Indicates the point where the aircraft will initiate an automatic acceleration or deceleration from current speed to new computed speed in case of SPD LIM, SPD CSTR, or HOLDING SPD (including 250 knots below 10,000).</li> </ul> |
|    | <b>Deceleration Point</b> <ul style="list-style-type: none"> <li>• Indicates where the aircraft will initiate an automatic deceleration toward <math>V_{APP}</math>.</li> <li>• Managed NAV mode and managed speed must be engaged.</li> </ul>   |

|   |   |
|---|---|
|    | <p><b>Altitude Constraints</b></p> <ul style="list-style-type: none"> <li>• Constraint is predicted to be met when the aircraft is in managed lateral and vertical modes.</li> <li>• Constraint is predicted to be missed. In this situation the aircraft is in the managed lateral and vertical modes; however, the FMGC will not be able to meet the altitude constraint.</li> <li>• Constraint is not being considered by the FMGC.</li> </ul>   |
|   | <p><b>Flight Plan Routes</b></p> <ul style="list-style-type: none"> <li>• The NAV modes can display the following flight plans. <ul style="list-style-type: none"> <li>• A green line represents the <b>Active Flight Plan</b>. <ul style="list-style-type: none"> <li>• <b>Managed Mode:</b> The course line will be continuous and depict the waypoints in range that are yet to be overflown. <ul style="list-style-type: none"> <li>• When the range selector is set to 160 or 320 NM, only the first waypoint of a SID or the last waypoint of a STAR will be depicted.</li> <li>• A continuous blue line depicts the <b>Missed Approach Procedure</b>.</li> <li>• A dashed blue line depicts the <b>Alternate Flight Plan</b> until activated. Once activated, the alternate flight plan is displayed in green.</li> <li>• If a flight plan offset is entered, the original flight plan course will be a dashed green line and the offset course will be depicted as a continuous green line.</li> <li>• <b>Note:</b> When flying an ILS approach the ND course will be depicted as a continuous green line; however, course guidance is being provided by the localizer signal. The FMA must be referenced to determine the active navigation mode.</li> </ul> </li> <li>• <b>Selected Mode:</b> If HDG is selected (FCU HDG knob pulled) the active flight plan line will be dashed. <ul style="list-style-type: none"> <li>• When the HDG mode active with NAV armed to intercept the FMGC course, the ND will display the new active flight plan as a continuous green line once the FMGC has computed the intercept. The portion of the flight plan before the intercept, that will not be flown will be shown as a dashed line.</li> </ul> </li> </ul> </li> <li>• A continuous white line depicts the <b>Secondary Flight Plan</b>. The ND will continue to display the active flight plan and where common legs occur, the course line will be a continuous green line.</li> <li>• A dashed yellow line represents the <b>Temporary Flight Plan</b>.</li> </ul> </li> </ul> |
|  | <p><b>Airports</b></p> <ul style="list-style-type: none"> <li>• Airports included in flight plan: <ul style="list-style-type: none"> <li>• If the runway is specified in the flight plan (departure or destination) it is represented by the oriented runway symbol in white.</li> <li>• If the runway is not specified in the flight plan it is represented by a star and the identification is displayed in white.</li> </ul> </li> <li>• The magenta star represents the airports that are displayed by pressing the APRTS pb on the EFIS control panel.</li> </ul>  |
|  | <p><b>ILS Marker Beacon (Diamond Shape)</b></p> <ul style="list-style-type: none"> <li>• Outer marker</li> <li>• Middle marker</li> <li>• Inner marker</li> </ul>   |

|   |   |
|---|---|
|  | <p><b>Nav aids</b><br/>The ND can display:</p> <ul style="list-style-type: none"> <li>• TACAN/DME</li> <li>• VOR</li> <li>• VOR/DME</li> <li>• NBD nav aids from the database. <ul style="list-style-type: none"> <li>• The color of the symbols will vary depending on its current status: <ul style="list-style-type: none"> <li>• Green if the nav aid is a current waypoint on the flight plan.</li> <li>• White if it is the TO waypoint.</li> <li>• Blue when the nav aid is tuned for display either automatically by the FMGC or manually through the MCDU.</li> <li>• Magenta when the nav aid is not part of the flight plan and is displayed by selecting the appropriate pb on the EFIS control panel.</li> </ul> </li> </ul> </li> </ul> |
|  | <p><b>Holding Pattern</b></p> <ul style="list-style-type: none"> <li>• The ND will display the holding pattern circuit when the hold is part of the active or next leg. The holding pattern will be displayed with right or left turns as appropriate.</li> <li>• The ND will display an arc representing the holding pattern and the direction of the hold when the hold is <u>not</u> part of the active or next leg.</li> </ul>  |
|  | <p><b>Energy Circle</b><br/>This symbol indicates the radius corresponding to the required distance to land from present position. This symbol will be centered on the aircraft position and oriented to the current track line and is only displayed in DES and APPR phase when a selected lateral mode is engaged (i.e. heading).</p>   |

**A**

ABN - Abnormal  
 ACARS - ARINC Communications and Reporting System  
 ACM - Air Cycle Machine  
 ACP - Audio Control Panel  
 ACT - Additional Center Tank  
 ADIRS - Air Data Inertial Reference System  
 ADIRU - Air Data Inertial Reference Unit  
 ADM - Air Data Module  
 ADR - Air Data Reference  
 ADV - Advisory  
 AEVC - Avionics Equipment Ventilation Controller  
 AFS - Auto Flight System  
 AIDS - Aircraft Integrated Data System  
 AIU - Audio Interface Unit  
 AMU - Audio Management Unit  
 ANP - Actual Navigation Performance  
 APPU - Asymmetry Position Pick Off Unit  
 APU - Auxiliary Power Unit  
 ARPT - Airport  
 ASAP - As Soon As Possible  
 ASI - Air Speed Indicator  
 A/SKID - Anti-Skid  
 ATE - Automated Test Equipment  
 A/THR - Auto Thrust  
 ATS - Auto Thrust System  
 ATSU - Air Traffic Service Unit  
 AWY - Airway

**B**

B - Blue  
 BARO - Barometric  
 BCL - Battery Charge Limiter  
 BCDS - Bite Centralized Data System  
 BFO - Beat Frequency Oscillator  
 BIU - Bite Interface Unit  
 BMC - Bleed Monitoring Computer  
 BNR - Binary  
 BRK - Brake  
 BSCU - Brake Steering Control Unit  
 BTC - Bus Tie Contactor

**C**

CBMS - Circuit Breaker Monitoring System  
 CFDIU - Centralized Fault Data Interface Unit  
 CFDS - Centralized Fault Display System  
 CHC - Cargo Heat Controller  
 CHG - Change  
 CIDS - Cabin Intercommunication Data System

**L**

LAF - Load Alleviation Function  
 LAT - Latitude  
 LAT REV - Lateral Revision  
 LCN - Load Classification Number  
 L/G - Landing Gear  
 LGCIU - Landing Gear Control Interface Unit  
 LGPIU - Landing Gear Position Indicator Unit  
 LIS - Localizer Internal Smoothing  
 LK - Lock  
 LL - Latitude/Longitude  
 LLS - Left Line Select Key  
 LNAV - Lateral Navigation  
 LONG - Longitude  
 LRU - Line Replaceable Unit  
 LSK - Line Select Key  
 LVL - Level  
 LVL/CH - Level Change  
 LW - Landing Weight

**M**

M - Magenta, Mach, Meter  
 MAG DEC - Magnetic Declination  
 MAG VAR - Magnetic Variation  
 MAX CLB - Maximum Climb  
 MAX DES - Maximum Descent  
 MAX END - Maximum Endurance  
 MCDU - Multipurpose Control and Display Unit  
 MCU - Modular Concept Unit  
 MDA - Minimum Descent Altitude  
 MECH - Mechanic  
 MFA - Memorized Fault Annunciator  
 MLS - Microwave Landing System  
 MMR - Multi-Mode Receiver  
 MN - Mach Number  
 MRIU - Maintenance and Recording Interface Unit  
 MSA - Minimum Safe Altitude  
 MSU - Mode Selector Unit

**N**

N - Normal, North  
 NAVAID - Navigation Aid (VOR/DME)  
 ND - Navigation Display  
 NW - Nose Wheel

**O**

OBRM - On Board Replaceable Module  
 OFF/R - Off Reset  
 OFST - Offset  
 O/P - Output

C/L - Checklist  
CO RTE - Company Route  
CONF - Configuration (Flaps/Slats)  
CPC - Cabin Pressure Controller  
CPCU - Cabin Pressure Controller Unit  
CRC - Continuous Repetitive Chime  
CRG - Cargo  
CSCU - Cargo Smoke Control Unit  
CSM/G - Constant Speed Motor/Generator  
CSTR - Constraint  
CTL PNL - Control Panel  
CVR - Cockpit Voice Recorder

## D

DA - Drift Angle  
DAR - Digital AIDS Recorder  
DDRMI - Digital Distance and Radio Magnetic Indicator  
DFA - Delayed Flap Approach  
DIR TO - Direct To  
DITS - Digital Information Transfer System  
DMC - Display Management Computer  
DSDL - Dedicated Serial Data Link  
DU - Display Unit

## E

ECAM - Electronic Centralized Aircraft Monitoring  
ECB - Electronic Control Box (APU)  
ECM - Engine Conditioning Monitoring  
ECON - Economic  
ECP - ECAM Control Panel  
ECS - Environmental Control System  
ECU - Engine Control Unit  
EDP - Engine Driven Pump  
EEC - Electronic Engine Computer  
EFCS - Electronic Flight Control System  
EFIS - Electronic Flight Instrument System  
EFOB - Estimated Fuel On Board  
EIU - Engine Interface Unit  
EIS - Electronic Instruments System  
ELAC - Elevator Aileron Computer  
EMER GEN - Emergency Generator  
EO - Engine Out

OPP - Opposite  
OPT - Optimum  
OUTB - Outboard  
OUTR - Outer  
OVBD - Overboard  
OVSPD - Overspeed

## P

P-ALT - Profile Altitude  
pb - Push Button  
PBD - Place/Bearing/Distance Waypoint  
PBX - Place-Bearing/Place-Bearing Waypoint  
PC - Pack Controller  
P-CLB - Profile Climb  
P-DES - Profile Descent  
PDU - Pilot Display Unit  
PFD - Primary Flight Display  
PHC - Probe Heat Computer  
P-MACH - Profile Mach  
POB - Pressure Off Brake  
PPOS - Present Position  
P-SPEED - Profile Speed  
PPU - Position Pick-off Unit  
PR - Pressure  
PRED - Prediction  
PROC - Procedure  
PROC T - Procedure Turn  
PROF - Profile  
PROTEC - Protection  
PRT - Printer  
PT - Point  
PTU - Power Transfer Unit

## Q

QRH - Quick Reference Handbook  
QT - Quart

## R

R - Right, Red  
RACC - Rotor Active Clearance Control  
RAT - Ram Air Turbine  
RCDR - Recorder  
RCH - Small unit of measurement  
RCL - Recall  
RCVR - Receiver  
R/I - Radio/Inertial  
RLSK - Right Line Select Key  
RMP - Radio Management Panel  
RNG - Range  
RNP - Required Navigational Performance  
RPTG - Repeating

EPE - Estimated Position Error  
EGPWS - Enhanced Ground Proximity Warning System  
ESS - Essential  
EST - Estimated  
ETE - Estimated Time Enroute  
ETP - Equal Time Point  
EVMU - Engine Vibration Monitoring Unit  
E/WD - Engine/Warning Display  
EXT PWR - External Power  
EXTN - Extension

## F

FAC - Flight Augmentation Computer  
FADEC - Full Authority Digital Engine Control  
FAP - Forward Attendant Panel  
FAV - Fan Air Valve  
F/C - Flight Crew  
FCDC - Flight Control Data Concentrator  
FCU - Flight Control Unit  
FD - Flight Director  
FDIU - Flight Data Interface Unit  
FDU - Fire Detection Unit  
FF - Fuel Flow  
FGC - Flight Guidance Computer  
FIDS - Fault Isolation and Detection System  
FLSCU - Fuel Level Sensing Control Unit  
FLT CTL - Flight Control  
FLX/MCT - Flex/Maximum Continuous Thrust  
FMA - Flight Mode Annunciator  
FMGC - Flight Management Guidance Envelope Computer  
FMGS - Flight Management Guidance Envelope System  
F-PLN - Flight Plan  
FPA - Flight Path Angle  
FPD - Flight Path Director  
FPPU - Feedback Position Pick-off Unit  
FPV - Flight Path Vector  
FQI/FQU - Fuel Quantity Indication/Unit  
FQIC - Fuel Quantity Indication Computer  
FRT - Front  
FRV - Fuel Return Valve  
FT/MN - Feet per Minute  
FU - Fuel Used  
FWC - Flight Warning Computer  
FWS - Flight Warning System

## G

G - Green  
GCU - Generator Control Unit  
GLC - Generator Line Contactor  
GNADIRS - Global Navigation Air Data Inertial Reference System

RQRD - Required  
RSV - Reserves  
RTOW - Regulatory TakeOff Weight

## S

S - Slat Retraction Speed, South  
SC - Single Chime  
S/C - Step Climb  
SD - System Display  
sel - Selector  
STAT INV - Static Inverter  
S/D - Step Descent  
SDAC - System Data Acquisition Concentrator  
SDCU - Smoke Detection Control Unit  
SEC - Spoiler Elevator Computer  
SFCC - Slat Flap Control Computer  
SLT - Slat  
SPD LIM - Speed Limit  
SPLR - Spoiler  
SRS - Speed Reference System  
STEER - Steering  
STS - Status  
sw - Switch  
SWTG - Switching  
SYNC - Synchronize

## T

T - Temperature  
TGT - Target  
THR - Thrust  
THS - Trimmable Horizontal Stabilizer  
TK - Tank, Track Angle  
TKE - Track Angle Error  
TMR - Timer  
TLA - Thrust Lever Angle  
TOGW - TakeOff Gross Weight  
TOW - TakeOff Weight  
T-P - Turn Point  
T-R - Transmitter-Receiver

GPCU - Ground Power Control Unit  
GRND - Ground  
GRP - Geographic Reference Point  
GRVTY - Gravity

H

H - Hour, Hot  
HCU - Hydraulic Control Unit  
HDG/S - Heading Selected  
HDL - Handle  
HLD - Hold  
HMU - HydroMechanical Unit  
HPV - High Pressure Valve

I

IDG - Integrated Drive Generator  
IGN - Ignition  
IMM - Immediate  
INB - Inbound  
INBO - Inboard  
INCREM - Increment  
INIT - Initialization  
INR - Inner  
INTCP - Intercept  
I/O - Input/Output  
I/P - Input or Intercept Profile  
IP - Intermediate Pressure  
IPC - Intermediate Pressure Checkvalve  
IPPU - Intermediate Position Pick-off Unit  
ISIS - Integrated Standby Instrument System  
ISOL - Isolation

J

K

TROPO - Tropopause  
TRU - Transformer Rectifier Unit  
TTG - Time To Go

U

UASS - Unofficial Airbus Study Site  
UFD - Unit Fault Data  
ULB - Underwater Locator Beacon  
UNLK - Unlock  
UTC - Universal Coordinated Time

V

VBV - Variable Bypass Valve  
V<sub>C</sub> Calibrated Airspeed  
V/DEV - Vertical Deviation  
VEL - Velocity  
V<sub>FE</sub> - Max Flaps Extended Speed  
V<sub>FEN</sub> - VFE Next  
V<sub>M</sub> - Maneuvering Speed  
V<sub>MIN</sub> - Minimum Operating Speed  
VNAV - Vertical Navigation  
VOR-D - VOR-DME  
VSC - Vacuum System Controller  
VSV - Variable Stator Vane

W

W - White, West, Weight  
WAI - Wing Anti-Ice  
WBC - Weight and Balance Computer  
WHC - Window Heat Computer  
WTB - Wing Tip Brake  
WXR - Weather Radar

X

XCVR - Transceiver  
XFR - Transfer

Y

Y - Yellow

Z

ZC - Zone Controller  
ZFCG - Zero Fuel Center of Gravity