AIRBUS

SINGLE AISLE
IN SERVICE AIRCRAFT
TECHNICAL FLIGHT MANUAL

ISSUE C – MAR 2021

MSN _____

A/C TYPE _____

CUSTOMER / OWNER _____

FOREWORD

The following Single Aisle (SA) A/C ISATFM contents are compiled by the AIB A/C Acceptance Department for use on **IN SERVICE A318 • A319 • A320 • A321** series A/C **ONLY**, by airline operators or teams from the Airbus Aircraft Acceptance Department.
The published procedures remain subject to last minute modification at any time without prior notice.
The following manual is applicable to the A/C types listed here below:

A319 -111/-112/-113/-114/-115	A319 -131/-132/-133	A319 -151N/-152N/-153N	A319 -171N
A320 -211/-212/-214/-215/-216	A320 -231/-232/-233	A320 -251N/-252N/-253N	A320 -271N/-272N/-273N
A321 -211/-212/-213	A321 -231/-232	A321 -251N(X)/-252N(X)/-253N(X)	A321 -271N(X)/-272N(X)

The manual contents are summarized in the ***TABLE OF CONTENTS*** and the ***RECORDS OF REVISION***. Updates on the test procedures are covered by issues recorded in the list and the changes to the document text are highlighted by a vertical line in the margin. When necessary, a new issue of the manual is published.

The operators must comply with the local rules in force for engine run and taxiing activities. A suitable briefing must take place before test execution. The person "in command" must be correctly qualified. In the event that the ISATFM is contracted by the airline to an Airbus crew, a written authorization for operation including satisfactory insurance cover must be provided to the Airbus operator.
The procedures used should be the standard engine run procedures contained in the AMM.

NOTE

THE IN-SERVICE AIRCRAFT TECHNICAL FLIGHT MANUAL IS PROVIDED ONLY TO CUSTOMER HAVING SIGNED THE DISCLAIMER LETTER.

REFER TO DISCLAIMER LETTER FOR THE SCOPE OF ISATFM USAGE.

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TABLE OF CONTENTS

RECORDS OF REVISION

Modifications of page layout are not highlighted in the present document. Only technical modifications have been traced.

ISSUE	DATE	EFFECT ON PAGE	EFFECT ON PART/CHAPTER /TEST	DESCRIPTION OF THE ISSUE
A	NOV 2019	All	All	- Initial Issue A created - Renumbering of the document - "List of effective test /revision highlights" replaced by "record of revision" table - S28: typing error on QFE value - S73: Transfer valves test applicability clarified - E2-E4: Eng 1-2 manual start order changed - F19: AoA tolerance set back to 0.5° - F26: Test title clarified and note added on AOA3 - A6: Chrono start added
B	JUNE 2020	89 99 106 202 207 231 239	S82 S88 S96 F32 F37 A15 A17	F/CTL panel P/B to be put ON AUTO BRAKE: precision added on BSU std Only FWD ISOL VALVE is closed A319 NEO added and tolerance on GW amended Note added on LDG emergency extension timeline A319 NEO added A319 NEO added
C	MAR 2021	1 15 16 30 32 47 84 100 125/129 169 172/173 182 188 216 218 227 245	Foreword S3 S4 S20 S21 S39 S77 S88 E2/E4 F3 F5/F8 F15 F19 A3 A4 A12 A18	A319CJ-153 model added Check removed Check removed Clock type clarified Clock type clarified Procedure updated FADEC GND PWR to be set to OFF Procedure updated Eng n° updated WXR multiscan man mode removed Thrust ratings tables reference removed Voltage tolerance updated Table updated (AoA-(PTCH-FPA)) New test Note added on FCTL protections Recommended speed not to exceed updated Typing error corrected (Vαmax-4kt)

USER GUIDELINES

The ISATFM is intended for technical flights to be performed on In Service Aircraft that may require a non-revenue flight following maintenance actions or during an aircraft transaction.

The manual is divided in three main parts:

S1. Part 1 - Ground Checks
Chapter 1 Static Checks
Chapter 2 Engine Run (Idle Run and High Power Run)
S2. Part 2 - Technical Flight
S3. Part 3 - Technical Flight - Additional Tests.

PART 1, Ground Checks covers a series of tests recommended to be performed on an in service aircraft that has followed a major maintenance action, modification or repair. In order to perform this chapter the operator must be trained and licensed on the aircraft type, including clearance to operate engines. It is highly recommended that these ground checks are satisfactorily completed prior to the technical flight. In the exceptional case the engine run-up (Part1, Chapter 2) is performed first, the following static check paragraphs (Part1, Chapter 1) should be completed as a minimum before starting tests listed in Chapter 2:

S19 ADIRS POWER UP
S23 RECORDERS
S29 to S38 APU
S76 to S81 HYDRAULIC
S88 WHEEL BRAKES
S98 or S99 HYD FIRE SHUT OFF VALVES CLOSURE

PART 2, Technical Flight, presents a profile of checks that are recommended to evaluate the overall condition of the in service aircraft during a non-revenue flight. This flight profile can be performed by any airline crew and does not require any specific training.

PART 3, Technical Flight Additional Tests, covers a set of checks that goes deeper in the analysis of the aircrafts systems and that requires a specific training for the crew since these tests are out of the scope of the Standard Operations Procedures (SOP). These tests must be integrated on Part 2 flight following the strict order indicated on the profile included on Chapter 3, taking into account crew capability, national regulations and environmental conditions.

Airline crews with no previous testing experience are highly recommended to obtain training on the systems particularities and techniques of the tests included in Part 3 prior to their execution. Airbus offers to operators, within its training catalogue, a Technical Flight Familiarization Course that covers all the aspects required to perform the complete ISATFM, including crew resources, regulation, techniques and analysis of the results.

Annotate the completed procedures (❑) as follows:

• (✓) for items checked satisfactorily,

• (∅) for items not checked satisfactorily,

• (N/A) for items which are not applicable to the concerned A/C.

All items with an asterisk (*) refers to an equipment (or option) which is dependent of the A/C configuration status.

❑

PART 1 GROUND CHECK

CHAPTER 1 - STATIC CHECKS

S1. INTRODUCTION

The PART 1 GROUND TEST - CHAPTER 1 lists the preliminary ground check procedures AIB recommends for application on in-service SA A/C prior to perform the ISATFM engine run in substitution to the current NORMAL PROCEDURES.

It is assumed that the A/C is presented for the application of the scheduled ground tests by the responsible maintenance and quality control organizations in a fully operational state with all the A/C documents reviewed and analyzed for satisfactory completion.

In order to perform scheduled fuel system tests it is recommended to request following fuel loading before starting with functional system checks:

A/C with no ACT: FOB **15000 kg** (33000 lbs) with wing tanks full

A/C with ACT:

A318Elite with ACT

FOB **15000**kg (33100lbs) with wing tanks full, 500kg (1100lbs) in ACT and the remaining quantity in the center tank.

A319CJ/A319ER/A320/A321 with 1 to 3 ACT installed:

FOB **16000**kg (35300lbs) with wing tanks full, 500kg (1100lbs) in each ACT and the remaining quantity in the center tank. ECAM caution ***FUEL ACT XFR FAULT*** may appear due to fuel distribution and can be disregarded.

A319CJ with 4 ACT or more installed:

FOB **17000**kg (37500lbs) with wing tanks full, 500kg (1100lbs) in each ACT and the remaining quantity in the center tank. ECAM caution ***FUEL ACT XFR FAULT*** may appear due to fuel distribution and can be disregarded.

S2. BATTERY OFF LOAD CONDITION

EXTERNAL POWER ..... **OFF**

BAT 1 + 2 ..... **OFF**

	BAT 1	BAT 2	
VOLTAGE (V)			> **25** V

- BATTERY VOLTAGES OK ..... ❑

❑

S3. FUEL ON BATTERY

EXTERNAL POWER ..... **OFF**

BAT 1 + 2 ..... **OFF**

REFUEL/DEFUEL ACCESS PANEL ..... **OPEN**

Note: RH fuselage (**STD**) or on the LH wing (*****) or on the RH wing (*****)

BAT POWER ..... **ON**

- FLOOD LIGHT ILLUMINATES ..... ❑

Note: *The BAT POWER supply remains available for about 10 min only*

After about 40 sec:

- REFUEL/DEFUEL SYSTEM POWER AVAILABLE ..... ❑
- FUEL QUANTITY IS DISPLAYED ..... ❑

HI LVL TEST ..... **PERFORM**

- HI LVL LIGHTS ILLUMINATE ..... ❑

Note: If some lights are illuminated before the test, those lights will extinguish during the test

LTS TEST ..... **PERFORM**

- ALL LIGHTS ILLUMINATE ..... ❑
- ALL WINDOWS WITH TEST FIGURES ..... ❑
- **INC/DEC** FUNCTION CORRECT OPERATION ..... ❑

MODE SELECT ..... **DEFUEL/XFR**

- XFR **OPEN** LIGHT ILLUMINATES ..... ❑

MODE SELECT ..... **OFF**

ACCESS PANEL DOOR SWITCH ..... **PRESS** for at least 15 sec

- REFUEL/DEFUEL SYSTEM DE-ENERGIZES ..... ❑
- PANEL FLOOD LIGHT EXTINGUISHES ..... ❑

REFUEL/DEFUEL ACCESS PANEL ..... **CLOSE**

❑

S4. SINGLE BATTERY SUPPLY INTERLOCK

EXTERNAL POWER ..... **OFF**
BAT 1 + 2 ..... **OFF**

DOME LT ..... **BRT**
RMP1 ..... **ON**
FLOOD LIGHT ..... **ADJUST**

BAT 1 ..... **ON**
- BAT 1 RELAY OPERATION IS AUDIBLE ..... ❑
- RMP1 / ACP1 / ACP2 / LH&RH FLOOD LIGHTS / RH DOME LT INOPERATIVE ..... ❑
- BAT 2 “OFF” LIGHT ILLUMINATES ..... ❑

BAT 2 ..... **ON**
- BAT 2 RELAY OPERATION IS AUDIBLE ..... ❑
- RMP1/ ACP1 / ACP2 (*) / RH DOME LT OPERATIVE ..... ❑
- L/H FLOOD LIGHTS ILLUMINATE ..... ❑
- R/H FLOOD LIGHTS ARE ON (DIMMED) OR NOT ILLUMINATED (*) ..... ❑
- ISIS OPERATES (*****) ..... ❑
- CVR (**** - 28VDC CVR SUPPLY***) OPERATES ..... ❑

Note: Ambient noise is audible through the jack – CVR headset - 50VU

BAT 1 ..... **OFF**
- BAT 1 **OFF** LIGHT ILLUMINATES ..... ❑
- RMP1 / ACP1 / ACP2 / RH DOME LT ARE INOPERATIVE ..... ❑
- R/H AND L/H FLOOD LIGHTS ARE NOT ILLUMINATED ..... ❑

BAT 1 ..... **ON**

❑

S5. RAM AIR – OUTFLOW VALVE EMERGENCY

RAM AIR ..... **ON**

- **ON** LIGHT IS NOT ILLUMINATED ..... ❑

- RAM AIR OPENS ..... ❑

CABIN PRESS MODE SEL ..... **MAN**

MAN V/S CTL ..... **HOLD TO DN**

- OUTFLOW VALVE OPERATES TOWARDS CLOSED POSITION ..... ❑

MAN V/S CTL ..... **HOLD TO UP**

- OUTFLOW VALVE OPERATES TOWARDS OPENED POSITION ..... ❑

MAN V/S CTL ..... **RELEASE**

RAM AIR ..... **OFF**

- RAM AIR CLOSES ..... ❑

CABIN PRESS MODE SEL ..... **AUTO**

Note: CPC 1 may go on FAULT till the ADIRS are operating and subsequent CPC 1 C/B reset may be necessary to clear this fault condition in addition.

S6. ELECTRICAL SUPPLY – MAINTENANCE BUS

EXT PWR UNIT ..... **CONNECTED / ON**

- EXT PWR PNL: "**AVAIL**" & "**NOT IN USE**" LIGHTS ARE ILLUMINATED ..... ❑

- EXT PWR PNL: LIGHT TEST OPERATIVE ..... ❑

- COCKPIT OVHD ELEC PNL: **AVAIL** LIGHT IS ILLUMINATED ..... ❑

BAT 1+2 ..... **OFF** (wait a few seconds)

BAT 1+2 ..... **ON**

MAINT BUS ..... **ON**

- GND SERVICE BUS IS SUPPLIED ..... ❑

- EXT PWR PNL: **NOT IN USE** LIGHT EXTINGUISHES ..... ❑

After about 30 sec

- EXTERNAL HORN SOUNDS FOR AVNCS LOW FLOW ..... ❑

EXT PWR ..... **ON**

❑

S7. CREW STATION - CM1 & CM2

- VFE/VLE/VLO PLACARD REF MATCH WITH FCOM (**FCOM/LIM/AG/SPD/MAXIMUM FLAPS/SLATS SPEEDS**) ❑
- STBY COMPASS CARD INSTALLED ❑

MECHANICAL SEAT ADJUSTMENTS

- VERTICAL (V) ❑
- HORIZONTAL (H) ❑
- RECLINE (R) ❑
- LUMBAR SUPPORT DUAL AFT/FWD CONTROLS ❑
- INBOARD ARMREST ADJUSTMENT ❑
- OUTBOARD SUPPORTING ARM ADJUSTMENT ❑

ELECTRICAL SEAT ADJUSTMENTS

- VERTICAL (V) ❑
- HORIZONTAL (H) ❑

SEAT BELTS NORMAL OPERATION

- SHOULDER HARNESS INERTIA LOCK ❑
- SHOULDER HARNESS INERTIA LOCK OVERRIDE ❑
- RUDDER PEDAL ADJUSTMENT ❑
- CROTCH STRAP ❑
- HEADREST ❑
- SHEEPSKIN COVERS (*) ❑

S8. COCKPIT MISCELLANEOUS

- SLIDING WINDOW OPERATION ❑
- FOLDING FOOT RESTS OPERATION ❑
- FOLDING TABLE (*) ❑
- FOLDING CHART HOLDER (*) ❑
- SUN SHADES OPERATION (**6**) ❑
- ELECTRICAL FOOT WARMERS (*) ❑

❑

S9. CREW STATION - CM3

- LATERAL SLIDING ❑
- FOLDING AND STOWING MECHANISM ❑
- FOLDING HEADREST OPERATION ❑
- SEAT BELTS NORMAL OPERATION ❑
- SHOULDER HARNESS INERTIA LOCK ❑
- SHOULDER HARNESS INERTIA LOCK OVERRIDE ❑
- WORKTABLE (*) ❑
- FOLDING ARMRESTS (*) ❑
- CROTCH STRAP (*) ❑

S10. CREW STATION - CM4 (*)

- FOLDING AND STOWING MECHANISM ❑
- SEAT BELTS NORMAL OPERATION ❑
- SHOULDER HARNESS INERTIA LOCK ❑
- SHOULDER HARNESS INERTIA LOCK OVERRIDE ❑
- FIXED FOOTREST (*) ❑
- CROTCH STRAP (*) ❑

S11. EMERGENCY EQUIPMENTS

- LIFE VESTS (ONE FOR EACH CREW STATION) ❑
- FIRE EXTINGUISHER (1) ❑
- SMOKE HOOD (PBE) (1) ❑
- CRASH AXE (1) ❑
- TORCH LAMP (2) ❑
- ESCAPE ROPES (2) FIXED TO THE STRUCTURE ❑
- GLOVES ❑

❑

S12. COCKPIT DOOR LOCKING AND SURVEILLANCE SYSTEM

CDSS – COCKPIT DOOR SURVEILLANCE SYSTEM (*)

OVHD PNL COCKPIT DOOR VIDEO ..... **ON**

ROUTINE ACCESS

COCKPIT DOOR ..... **CLOSE**

COCKPIT DOOR SELECTOR ..... **NORM**

KEYPAD ..... **PRESS "#"**

- BUZZER SOUNDS (3 SEC.) ..... ❑
- COCKPIT DOOR REMAINS LOCKED ..... ❑

KEYPAD ..... **PRESS "#"**

- BUZZER SOUNDS (3 SEC). ..... ❑

Within 30 sec:

COCKPIT DOOR SELECTOR ..... **UNLOCK**

- COCKPIT DOOR UNLOCKS ..... ❑
- KEYPAD GREEN LED ILLUMINATES ..... ❑

COCKPIT DOOR SELECTOR ..... **NORM**

COCKPIT DOOR ..... **CLOSE**

KEYPAD ..... **PRESS "#"**

- BUZZER SOUNDS (3 SEC.) ..... ❑

Within 30 sec:

COCKPIT DOOR SELECTOR ..... **LOCK**

- COCKPIT DOOR REMAINS LOCKED ..... ❑
- KEYPAD OPERATION IS INHIBITED: RED LED ILLUMINATES (APPROX. 5MIN) ..... ❑

To reset the inhibition timer:

COCKPIT DOOR SELECTOR ..... **UNLOCK**

❑

EMERGENCY ACCESS

COCKPIT DOOR SELECTOR ..... **NORM**

KEYPAD "APPLICABLE CODE" [ ] + # KEY ..... **DIAL**

- BUZZER SOUNDS ..... ❑
- KEYPAD GREEN LED FLASHES ..... ❑
- COCKPIT DOOR PANEL "OPEN" LIGHT FLASHES ..... ❑

After 30 sec:

- COCKPIT DOOR UNLOCKS FOR **5** SEC ..... ❑
- BUZZER STOPS ..... ❑
- COCKPIT DOOR PANEL "OPEN" LIGHT ILLUMINATES FOR **5** SEC ..... ❑
- KEYPAD GREEN LED ILLUMINATES FOR **5** SEC ..... ❑

Note: The system is permanently powered except when cockpit door latch C/B T13 is pulled or A/C Powered by Maintenance bus or EMER ELEC configuration (ESS FEED ALTN, BAT ONLY). In these conditions the door is unlocked

COCKPIT DOOR BACKUP (*)

LKG SYS SELECTOR SWITCH ..... **BK UP**

CTL P/B ..... **PRESS**

- COCKPIT DOOR UNLOCKS ..... ❑
- CTL **OPEN** LIGHT ILLUMINATES WHEN DOOR IS OPENED ..... ❑

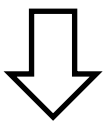
CTL P/B ..... **RELEASE**

COCKPIT DOOR ..... **CLOSE**

LKG SYS SELECTOR SWITCH ..... **OFF**

- CTL **FAULT** LIGHT ILLUMINATES ..... ❑
- COCKPIT DOOR UNLOCKS ..... ❑

LKG SYS SELECTOR SWITCH ..... **NORM**



❑

CDSS ON 120 VU (*)

- COCKPIT DOOR ACCESS VIEW IS DISPLAYED ❑

PEDESTAL: COCKPIT DOOR VIDEO **PRESS**

- COMBINED LH & RH ENTRY VIEWS IS DISPLAYED ❑
- BRIGHTNESS & CONTRAST ADJUSTMENT CORRECT OPERATION ❑

CDSS DISPLAYED ON SD (*)

ECAM PAGE **SET TO MEMO - DOOR**

PEDESTAL VIDEO MODE SELECTOR **CPKT ENTRY**

- COCKPIT DOOR ACCESS VIEW IS DISPLAYED ❑

PEDESTAL VIDEO CAM SEL BUTTON **PRESS**

- COMBINED LH & RH ENTRY VIEWS IS DISPLAYED ❑

ECP **SELECT ANY PAGE**

- SELECTED PAGE IS DISPLAYED ❑

PEDESTAL VIDEO MODE SELECTOR **OFF**

Note: The video shall display the cabin as if no door and no cockpit partition were installed

COCKPIT DOOR MECHANICAL BACKUP-DEADBOLT (*)

CHECK MECHANICAL BACKUP LOCKING DEVICE ❑

❑

S13. COCKPIT LIGHTS

INT LT

DOME

- CHECK BRT / DIM / OFF FUNCTIONS ❑

ICE IND & STBY COMPASS (*) ..... **ON**

- STANDBY COMPASS INTEGRATED LIGHT ILLUMINATES ❑
- ICE INDICATOR LIGHT ILLUMINATES (*) ❑

STBY COMPASS ..... **OFF**

OVHD INTEG LT

- CHECK PROPER FUNCTIONING ❑

STATION LIGHTS CM1 & CM2

CONSOLE/FLOOR

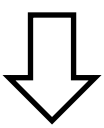
- CHECK BRT / DIM / OFF FUNCTIONS ❑

READING LT

- CHECK BRIGHTNESS CONTROL ❑
- CHECK FOCUS ADJUSTMENT (*) ❑
- CHECK LIGHT GOES OFF WHEN STOWED (*) ❑

FOLDING TABLE LT (*)

- CHECK BRIGHTNESS CONTROL ❑



❑

STATION LIGHTS CM3 - CM4 (*)

READING LT

- CHECK BRIGHTNESS CONTROL ❑
- CM3 / CM4 READING LIGHT BEAMS ADJUSTABLE ❑

FCU INTEGRATED LIGHTING

- FCU INTEGRATED LIGHTING CONTROLLED BY THE LH BRIGHTNESS CONTROL ❑
- FCU REFERENCE WINDOWS LIGHTING CONTROLLED BY THE RH BRIGHTNESS CONTROL ❑

PEDESTAL

FLOOD LT (**MAIN PNL**)

- CHECK PROPER FUNCTIONING ❑

INTEG LT (**MAIN PNL & PED**)

- CHECK PROPER FUNCTIONING ❑

FLOOD LT (***PED***)

- CHECK PROPER FUNCTIONING ❑
- PEDESTAL FLOOD LIGHT BEAM IS FIXED ❑

ALL LIGHTS AS REQUIRED **SET**

❑

S14. EIS BRIGHTNESS CONTROL

- CHECK ALL DU/ MCDU BRIGHTNESS CONTROL FOR SMOOTH OPERATION ❑

ALL DU / MCDU BRIGHTNESS BELOW MEDIUM **SET**

- DU/MCDU BRIGHTNESS INCREASE WHEN PHOTO-CELL IS LIGHTED ❑

ISIS (*)

ISIS BRIGHTNESS CONTROL BELOW MEDIUM **SET**

- ISIS BRIGHTNESS INCREASES WHEN PHOTO-CELL IS LIGHTED ❑

DCDU (*)

DCDU BRIGHTNESS BELOW MEDIUM **SET**

- DCDU'S BRIGHTNESS INCREASE WHEN PHOTO-CELL IS LIGHTED ❑

ALL

SET ALL DU, MCDU, ISIS AND DCDU (*) BRIGHTNESS AS REQUIRED UPON PROCEDURE COMPLETION

S15. ANNUNCIATOR LIGHTS

ALL DU BRIGHTNESS TO NORMAL **SET**

RMP1 (2) (3) **ON**

ANN LT **TEST**

- ALL P/B LEGENDS AND ANNUNCIATOR LIGHTS ILLUMINATE ❑

EXCEPT ADIRU CTL PANEL INDICATION (**UNLESS SELECTED NAV OR ATT**)

EXCEPT FUEL PRESELECTOR PANEL (**UNLESS PWR IS SELECTED ON**)

- ALL DISPLAY/LCD WINDOWS INDICATE THEIR SPECIFIC TEST FIGURE ❑

EXCEPT COLLINS DDRMI (*)

- ALL DU'S TEST PICTURES APPEAR (EIS 1) ❑

ANN LT **DIM**

- ILLUMINATED P/B LEGENDS AND ANNUNCIATOR LIGHTS DIMMED ❑

ANN LT **BRT**

❑

S16. EXTERIOR LIGHTS

CHECK ALL EXTERIOR LIGHTS ..... ❑

S17. SERVICE CALLS

MECH **CALL** P/B ..... **PRESS**

- EXTERNAL HORN AUDIBLE ..... ❑

- EXT PWR PANEL COCKPIT CALL LIGHT ILLUMINATES ..... ❑

EXT PWR PANEL, RESET P/B ..... **PRESS**

- EXT PWR PANEL COCKPIT **CALL** LIGHT EXTINGUISHES ..... ❑

EXT PWR PANEL, COCKPIT **CALL** P/B ..... **PRESS**

- ALL THE ACP MECH LIGHTS ILLUMINATE ..... ❑

- MECH CALL BUZZER SOUNDS AS LONG AS THE COCKPIT **CALL** P/B IS PRESSED ..... ❑

MECH CALL ..... **RESET FROM ANY ACP**

- ALL ACP MECH CALL LIGHTS EXTINGUISH WITHIN **3** SEC ..... ❑

EXT PWR PANEL COCKPIT CALL P/B ..... **PRESS**

CHRONO ..... **START**

After about 60 sec:

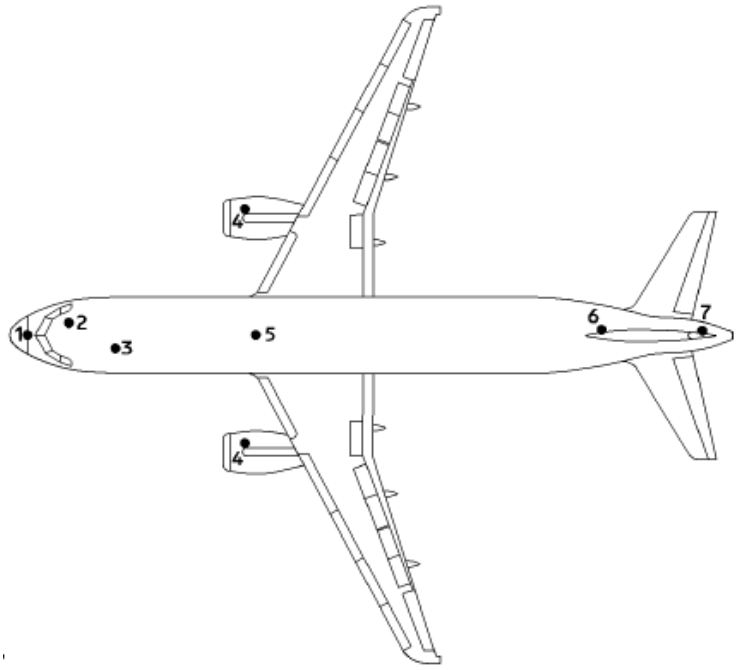
ALL ACP MECH CALL LIGHTS AUTOMATICALLY DISAPPEAR ..... ❑

CHRONO ..... **STOP/RESET**

❑

S18. SERVICE INTERPHONE

CHECK THE SERVICE INTERPHONE JACKS (Ref: **AMM 23.44.00.**) ❑



THE **SVCE INT OVRD P/B** DOES NOT LATCH IN THE **ON** POSITION WHEN THE A/C IS ON GROUND ❑

Note:

1 - 1RJ located in 90VU

2 - 2RJ located in BAT COMPT

3 - RJ located in 80VU

4 - 4000RJ1(2) located at ENG1(2)

5 - 11RJ located at MLG BAY ELECTRICAL SVCE PNL

6 / 7 - 13RJ and 14RJ located in THS COMPT (Section 19 access door)

❑

S19. ADIRS POWER UP - TEST - REMOTE LOADING

IF ADIRS CDU INSTALLED

DATA ..... **STS**

SYS ..... **1 (3) (2)**

IR 1 (3) (2) MODE SELECT ..... **NAV**

- ADR 1 (**3**) (**2**) FAULT & OFF LIGHTS BRIEFLY (HONEYWELL) ..... ❑
- **ON BAT** LIGHT FOR ABOUT **5** SEC (**WITHIN 10 SEC AFTER POWER ON**) ..... ❑
- **ALIGN** LIGHT ..... ❑
- DISPLAY WINDOW READS STS - ENTER PPOS ..... ❑

DATA ..... **TEST**

- DISPLAY WINDOW LCD SHOWS TEST SYMBOLS ..... ❑
- **ENT** AND **CLR** KEY ILLUMINATE ..... ❑

DATA ..... **HDG**

- DISPLAY WINDOW READS TTN **10** OR BELOW ..... ❑

DATA ..... **STS**

- **IR IN ALIGN > 7 MN** ECAM MEMO IS DISPLAYED ..... ❑

REPEAT THE PROCEDURE SUCCESSIVELY FOR IR (**2**) (**3**) ..... (**2**)❑ (**3**)❑

DATA ..... **PPOS**

ADIRS MSU (*)

IR 1 (3) (2) MODE SELECT ..... **NAV**

Within about 10 sec after power on

- **ON BAT** LIGHT FOR A FEW SEC ..... ❑
- **IRS IN ALIGN > 7 MN** ECAM MEMO APPEARS ..... ❑

REPEAT THE PROCEDURE SUCCESSIVELY FOR IR (3) (2) ..... ❑

❑

ALL

ADIRS ALIGNMENT IMPROVEMENT FUNCTION (*)

- CHECK IR 1 (2) (3) POSITIONS ARE IDENTICAL TO GPS POSITION ❑

ELSE INSERT THE CURRENT LAT AND LONG GEOGRAPHICAL COORDINATES

OR SELECT ACTUAL COORDINATES FROM ONE MCDU FMGC / DATA / GPS MONITOR PAGE, IF GPS AVAILABLE

- THE COORDINATES ARE LOADED INTO THE 3 IR SIMULTANEOUSLY ❑

❑

S20. ELECTRICAL CLOCK

- VERIFY UTC (MO - DY - Y - HR - MIN - SEC) SET AND RUN FUNCTIONS ❑
- VERIFY ET - DATE (SET) AND CHR FUNCTIONS ❑
- VERIFY ALSO THE L/R GLARESHIELD CHRONO FUNCTIONS ❑

GPS TIME CLOCK (NOT SMITHS & NOT SEXTANT)

CLOCK SELECTOR ..... **SET**
FICTITIOUS UTC AND DATE ..... **INSERT**
CLOCK SELECTOR ..... **INT**
- CLOCK UTC REMAINS UNCHANGED ❑
- UTC ON SD CHANGES TO CLOCK UTC ❑

CLOCK SELECTOR ..... **GPS**
- ECAM AND CLOCK UTC/DATE REVERT TO GPS UTC/DATE ❑

IF GPS SIGNAL IS NOT AVAILABLE:
CLOCK SELECTOR ..... **SET**
CORRECT UTC/DATE ..... **INSERT**

❑

S21. PRIMARY TIME BASE FAILURE

C/B **F11/N2** (**CLOCK NORM/STBY SPLY**) ..... **PULL**

- CLOCK INFORMATION DISAPPEARS ..... ❑
- UTC REMAINS ON SD ..... ❑

C/B **J17/J18** (**CFDIU BACK UP/SPLY**) (J41/J40 FOR NEO ACJ) ..... **PULL**

- UTC ON SD SHOWS XXHXX ..... ❑

C/B **J17/J18** (J41/J40 FOR NEO ACJ) ..... **PUSH**

Within 60 sec, CFDIU is re-initialized and the CFDS prompt appears

After another 45 to 60 sec:

- GMT/DATE INIT PROMPT APPEARS ON THE CFDS NEXT PAGE ..... ❑

GMT/DATE INIT ..... **SELECT**

- 79:99 IS INDICATED ON THE MCDU ..... ❑
- UTC ON SD REMAINS XXHXX ..... ❑

RANDOM UTC INTO THE MCDU ..... **SET**

- UTC ON SD CHANGES TO THE INSERTED ONE ..... ❑

C/B **F11/N2** ..... **PUSH**

- "**00:00**" CLOCK TIME APPEARS (SMITHS CLOCK) ..... ❑
- CLOCK MEMORIZED REAL-TIME APPEARS (SEXTANT CLOCK) ..... ❑
- CLOCK UTC REVERTS TO GPS UTC (*OR "00:00" IF "INT" IS STILL SELECTED PRIOR TO THE CLOCK RESET*) (GPS CLOCK) ..... ❑
- MCDU INSERTED AND COUNTED UTC REMAINS DISPLAYED ON SD ..... ❑

❑

NON-GPS CLOCK / SEXTANT OR SMITHS (*)

CURRENT UTC: HS (D) - MS (M) – HLD (Y) ..... **SET**

UTC KNOB ..... **RUN**

C/B **J17/J18** (**CFDIU BACK UP/SPLY**) (J41/J40 FOR NEO ACJ) ..... **PULL**

- MCDU/CFDS GMT/DATE INIT INFORMATION DISAPPEARS ..... ❑

C/B **J17/J18** (J41/J40 FOR NEO ACJ) ..... **PUSH**

- UTC RECOVERED ON SD AFTER CFDIU RECOVERY ..... ❑

Note: In order to recover a normal CFDS behavior apply AMM task 31-32-00-001: After CFDIU C/B reset, as soon as CFDS prompt appears start chrono, wait 45 sec then press CFDS prompt.

❑

S22. ACP SWITCHING

ACP 1 & 2 ..... **SET ALL Tx/Rx OFF**

ACP 3 ..... **INT Tx/Rx SET**

- CAPT & F/O AUDIO EQUIPMENT ARE INOPERATIVE ..... ❑

AUDIO SWITCHING ..... **CAPT 3**

- ECAM MEMO: **"AUDIO 3 XFRD"** APPEARS ..... ❑

- CAPT AUDIO EQUIPMENT OPERATES THROUGH ACP 3 ..... ❑

AUDIO SWITCHING ..... **F/O 3**

- F/O AUDIO EQUIPMENT OPERATES THROUGH ACP 3 ..... ❑

AUDIO SWITCHING ..... **NORM**

- ECAM MEMO: **"AUDIO 3 XFRD"** DISAPPEARS ..... ❑

ACP 1 & 2 ..... **Tx/Rx AS REQUIRED**

ACP 3 ..... **Tx/Rx SET TO OFF**

❑

S23. RECORDERS

PARKING BRK ..... **ON**

RCDR GND CTL ..... **ON**

- NO DFDR FAULT MESSAGE IS DISPLAYED ON ECAM ..... ❑

CM1 - CM2 LOUDSPEAKER VOLUME ..... **OFF**

ACP INT/RAD SW (CAPT & F/O) ..... **SET TO INT**

INT RECEPTION KNOB (CAPT & F/O) ..... **RELEASE & TURN DOWN TO THE MINIMUM**

CVR TEST ..... **PRESS AND HOLD**

- SPECIFIC TEST TONE IS GENERATED OVER LOUDSPEAKERS ..... ❑

ALL EXCEPT HWL STEP 2 CVR

ANY ACP, INT VOLUME TO MAX ..... **SET**

- AFTER TEST TONE, ENSURE YOUR VOICE IS EMITTED WITH HANDMIKE ..... ❑

ALL

CVR TEST ..... **RELEASE**

PARKING BRK ..... **OFF**

CVR TEST ..... **PRESS & HOLD**

- CVR TEST FUNCTION IS INHIBITED ..... ❑

PARKING BRK ..... **ON**

RCDR GND CTL ..... **AUTO**

CM1 - CM2 LOUDSPEAKER VOLUME ..... **ON**

❑

S24. EFIS MODES SWITCHING

EFIS 1 – 2 PFD/ND XFR ..... **PRESS**

- PFD AND ND DISPLAYS INTERCHANGE ..... ❑

EFIS 1 – 2 PFD/ND XFR ..... **PRESS**

- PFD AND ND DISPLAYS GO BACK TO NORMAL ..... ❑

EFIS 1 – 2 PFD ..... **OFF**

- PFD FUNCTION TRANSFERS TO ND ..... ❑

EFIS 1 – 2 PFD ..... **ON**

*Note: To revert to normal flight configuration, PFD/ND XFR needs also to be pressed (**EIS 2**)*

S25. ECAM MODES SWITCHING

FROM THE ECP SELECT IN SEQUENCE ALL AVAILABLE ECP PAGES

- SELECTED SYSTEM PAGE DISPLAYS ACTUAL DATA ..... ❑

E/WD BRIGHTNESS CONTROL KNOB ..... **OFF**

- E/WD TRANSFERS TO SD ..... ❑

E/WD BRIGHTNESS CONTROL KNOB ..... **NORMAL**

❑

S26. DU SWITCHING (EIS 1)

ECAM ..... **CLR TO MEMO - DOOR**

C/B **E11** (**EIS/DMC 1 SPLY**) ..... **PULL**

- ECAM WARNINGS APPEAR ..... ❑
- PFD1 - ND1 - E/WD BLANK ..... ❑

EIS DMC ..... **CAPT 3**

- PFD1 - ND1 INFORMATION APPEAR ..... ❑
- ECAM MEMO: **"SWITCHG PNL"** APPEARS ..... ❑
- E/WD INFORMATION APPEAR ..... ❑

EIS DMC ..... **NORM**

- ECAM MEMO: **"SWITCHG PNL"** DISAPPEARS ..... ❑

C/B **E11** ..... **PUSH**

C/B **Q8** (**EIS/DMC2 SPLY**) ..... **PULL**

- ECAM WARNINGS APPEAR ..... ❑
- PFD2 - ND2 - SD BLANK ..... ❑

EIS DMC ..... **F/O 3**

- PFD2 – ND2 INFORMATION APPEAR ..... ❑
- ECAM MEMO: **"SWITCHG PNL"** APPEARS ..... ❑
- SD INFORMATION APPEAR ..... ❑

EIS DMC ..... **NORM**

- ECAM MEMO: **"SWITCHG PNL"** DISAPPEARED ..... ❑

C/B **Q8** ..... **PUSH**

❑

ECAM/ND XFR ..... **CAPT**

- SD INFORMATION IS TRANSFERRED TO ND1 ..... ❑
- E/WD BLANKS ..... ❑
- E/WD INFORMATION IS TRANSFERRED TO SD ..... ❑

ECAM/ND XFR ..... **F/O**

- SD INFORMATION IS TRANSFERRED TO ND2 ..... ❑
- SD BLANKS ..... ❑

ECAM/ND XFR ..... **NORM**

❑

S27. DU SWITCHING (EIS 2)

ECAM ..... **CLR TO MEMO - DOOR**

C/B **E11** (**EIS/DMC 1 SPLY**) ..... **PULL**

- INVALID DATA IS DISPLAYED ON PFD1 & ND1 ..... ❑
- E/W **EIS DMC 1 FAULT** APPEARS ..... ❑

EIS DMC ..... **CAPT 3**

- PFD1 & ND1 INFORMATION APPEAR ..... ❑
- ECAM MEMO: **"SWITCHG PNL"** APPEARS ..... ❑

EIS DMC ..... **NORM**

- ECAM MEMO: **"SWITCHG PNL"** DISAPPEARS ..... ❑

C/B **E11** ..... **PUSH**

C/B **Q8** (**EIS/DMC2 SPLY**) ..... **PULL**

- INVALID DATA DISPLAYED ON PFD2 & ND2 ..... ❑
- E/W **EIS DMC 2 FAULT** APPEARS ..... ❑

EIS DMC ..... **F/O 3**

- PFD2 & ND2 INFORMATION APPEAR ..... ❑
- ECAM MEMO: **"SWITCHG PNL"** APPEARS ..... ❑

EIS DMC ..... **NORM**

- ECAM MEMO: **"SWITCHG PNL"** DISAPPEARS ..... ❑

C/B **Q8** ..... **PUSH**

ECAM/ND XFR ..... **CAPT**

- "**ECAM ON ND"** IS INDICATED ON SD ..... ❑
- SD INFORMATION IS TRANSFERRED TO ND1 ..... ❑

ECAM/ND XFR ..... **F/O**

- "**ECAM ON ND"** IS INDICATED ON SD ..... ❑
- SD INFORMATION IS TRANSFERRED TO ND2 ..... ❑

ECAM/ND XFR ..... **NORM**

❑

S28. EFIS BARO REF VALIDITY

EFIS 1 – 2 BARO REF QNH ..... **SET TO 1013HPa**

- QNH **1013** IS DISPLAYED ON PFD 1 & 2 ..... ❑

EFIS 1 - 2 BARO REF MODE ..... **SET IN Hg**

- BARO REF SHOWS **29.91 Hg** ..... ❑

EFIS 1 - 2 BARO REF ..... **PULL STD**

- BARO REF SHOWS STD ..... ❑
- STD DISPLAYED ON PFD 1 & 2 ..... ❑

EFIS 1 - 2 BARO REF QNH **1013 HPa** ..... **SET**

EFIS 1 BARO REF QNH **1023 HPa** ..... **SET**

- E/W **NAV ALTI DISCREPANCY** IS TRIGGERED ..... ❑

EFIS 2 BARO REF QNH ..... **SET TO 1023 HPa**

- E/W IS CLEARED ..... ❑

QFE SETTING (*)

EFIS 1 BARO REF ..... **PRESS**

- QFE 1023 HPa IS DISPLAYED ON PFD 1 ..... ❑
- E/W **NAV BARO REF DISCREPANCY** IS TRIGGERED ..... ❑

EFIS 2 BARO REF ..... **PRESS**

- QFE 1023 HPa IS DISPLAYED ON PFD 2 ..... ❑
- E/W IS CLEARED ..... ❑

REVERT TO THE CURRENT QNH DISPLAY ONCE THE PROCEDURE IS COMPLETED

ALT IN METRIC UNIT ON PFD (*)

FCU METRIC ALT PB ..... **PRESS**

- ALTITUDE IS DISPLAYED IN METER ON THE PFD ALT SCALE ..... ❑

❑

S29. APU GENERAL

ECAM PAGE ..... **SET TO ELEC**

Wait for the batteries to disconnect from the DC BAT bus prior to proceed

ECAM PAGE ..... **SET TO MEMO - DOOR**

APU MASTER SW ..... **ON**

- APU PAGE APPEARS ON SD ..... ❑

- **FLAP OPEN** MESSAGE DISPLAYED WITHIN **30** SEC ..... ❑

ECAM PAGE ..... **SET TO ELEC**

- BAT1&2 ARE CONNECTED TO DC BAT BUS ..... ❑

ECAM PAGE ..... **SET TO MEMO - APU**

CFDS “APU SYSTEM TEST” OR “SELF-TEST” ..... **PERFORM**

- TEST OK ..... ❑

From CFDS “APU SERVICE DATA” or “DATA / OIL” menu, record:

APU S/N		**HOURS**		**CYCLES**	
OIL LEVEL		**START ATTEMPTS (APIC/PWC ONLY)**			

❑

S30. APU AUTO EXTINGUISHING TEST

APU AUTO EXTING TEST ..... **ON**

- HALF PART OF FIRE LIGHTS ILLUMINATES ..... ❑
- APU MASTER S/W FAULT LIGHT ILLUMINATES ..... ❑
- ECAM CAUTION "**APU EMER SHUT DOWN**" APPEARS ..... ❑
- AFTER APPROX. 3 SEC: "OK" LIGHT ILLUMINATES ..... ❑
- EXT PWR PNL: "APU FIRE" LIGHT ILLUMINATES & EXTERNAL HORN SOUNDS ..... ❑
- APU FIRE WARNING CANNOT BE CLEARED USING RESET P/B ON EXT PWR PNL ..... ❑

AUTO EXTING TEST ..... **RESET**

APU MASTER SW ..... **OFF**

- ALL PREVIOUS WARNINGS DISAPPEAR ..... ❑

Note: Additional ECAM caution APU FIRE LOOP A FAULT is displayed during that test (CEO A/C with Meggit FDU & all NEO A/C)

The ECAM warning is latched until next APU Master Switch selection to ON

❑

S31. APU FIRE DETECTION (EIS 1)

FOR A/C PRE-MP P9248 OR PRE SB 26-1063 MODIFIED FIRE EXTINGUISHING AND OVERHEAT DETECTION

C/B L40 (APU AUTO EXTIG GND TEST) ..... **PULL**

ECAM PAGE ..... **SET TO FUEL**

- FUEL LP VALVE CROSS-LINE ..... ❑

APU MASTER SW ..... **ON**

- FUEL LP VALVE IN-LINE ..... ❑

ECAM PAGE ..... **SET TO MEMO - APU**

APU FIRE TEST ..... **PRESS AND HOLD**

- ECAM WARNING "**APU FIRE"** APPEARS ..... ❑

- AGENT SQUIB/DISCH AND APU FIRE LIGHTS ILLUMINATE ..... ❑

APU FIRE P/B ..... **PUSH**

- CRC GOES OFF ..... ❑

ECAM PAGE ..... **SET TO FUEL**

- FUEL LP VALVE AMBER CROSS-LINE ..... ❑

APU FIRE TEST ..... **RELEASE**

APU FIRE ..... **RESET**

APU MASTER SW ..... **OFF**

FOR A/C PRE-MP P9248 OR PRE SB 26-1063 MODIFIED FIRE EXTINGUISHING AND OVERHEAT DETECTION

C/B L40 ..... **PUSH**

ECAM PAGE ..... **SET TO MEMO - DOOR**

❑

S32. APU FIRE (EIS 2)

FOR A/C PRE-MP P9248 OR PRE SB 26-1063 MODIFIED FIRE EXTINGUISHING AND OVERHEAT DETECTION

C/B L40 *(APU AUTO EXTIG GND TEST)* ..... **PULL**

ECAM PAGE ..... **SET TO FUEL**

- FUEL LP VALVE SYNOPTIC WHITE ..... ❑

APU MASTER SW ..... **ON**

- FUEL LP VALVE SYNOPTIC GREEN ..... ❑

ECAM PAGE ..... **SET TO MEMO - APU**

APU FIRE TEST ..... **PRESS AND HOLD**

- ECAM WARNING "**APU FIRE"** APPEARS ..... ❑
- AGENT "SQUIB/DISCH & APU FIRE" LIGHTS ILLUMINATE ..... ❑

APU FIRE ..... **PUSH**

- CRC GOES OFF ..... ❑

ECAM PAGE ..... **SET TO FUEL**

- FUEL LP VALVE SYNOPTIC DISAPPEARS & "APU" IS INDICATED AMBER ..... ❑

APU FIRE TEST ..... **RELEASE**

APU FIRE P/B ..... **RESET**

APU MASTER SW ..... **OFF**

FOR A/C PRE-MP P9248 OR PRE SB 26-1063 MODIFIED FIRE EXTINGUISHING AND OVERHEAT DETECTION

C/B L40 ..... **PUSH**

ECAM PAGE ..... **SET TO MEMO - DOOR**

❑

S33. APU START

GMT…….

RECORD	**OAT**		**QNH**		**PRESS ALT**	

APU ..... **START**

- "AVAIL" LIGHT ILLUMINATES WHEN N ≥ **95** % FOR 2 SEC ..... ❑

- ECAM - DOOR PAGE APPEARS AFTER 15 SEC ..... ❑

S34. APU OFF LOAD

APU GEN ..... **OFF**

N (%)		HWL 36-300: **99** % ± **1** HWL 131-9 & APIC/PWC: **100** % ± **1**
EGT (°C)		HWL max **435** °C APIC/PWC max **405** °C
PRESS (PSI) - APU page		
PRESS (PSI) - BLEED page		HWL 131-9: max **6** PSI HWL 36-300 & APIC/PWC: max **4** PSI

❑

Note: - The recorded APU press figure is random

S35. APU ELECTRICAL SUPPLY

APU GEN ..... **ON**

EXT PWR ..... **OFF**

	APU GEN	
LOAD (%)		
VOLTAGE (V)		**115V ± 5**
FREQUENCY (Hz)		**400Hz ± 5**

❑

❑

S36. APU BLEED (ECS MIN)

PACK 1 & 2 ..... **OFF**
APU BLEED ..... **ON**

After APU thermal stabilization, record:

N (%)		HWL 131-9: **99** % ± 1 (-18<OAT<35°C) **100** % ± 1 (OAT < -18°C or >35°C) HWL 36-300: **99** % ± 1 (OAT<30±2°C) **101** % ± 1 (OAT>30±2°C) APIC/PWC: **100** % ± 1
EGT (°C)		HWL 131-9: max **655** °C HWL 36-300: max **630** °C APIC/PWC: max **638** °C
PRESS (PSI) - APU page		
PRESS (PSI) - BLEED page		Max Δ between APU/BLEED page = 6 PSI ❑

PACK 1 & 2 ..... **ON**

S37. APU BLEED (ECS NORM)

ZONE TEMP SELECTORS TO 12 O'CLOCK POSITION ..... **SET**

After APU thermal stabilization, record:

N (%)		HWL 131-9: **99** % **± 1** (-18<OAT<35°C) **100** % **± 1** (OAT < -18°C or >35°C) HWL 36-300: **99** % **± 1** (OAT<30±2°C) **101** % **± 1** (OAT>30±2°C) APIC/PWC: **100** % **± 1**
EGT (°C)		HWL 131-9: max **655** °C HWL 36-300: max **630** °C APIC/PWC: max **638** °C
PRESS (PSI) - APU page		**≥14PSI** if zone temp ≤ 22°C (72°F), **or** **≥28PSI** if zone temp ≥ 26°C (79°F) ❑

❑

S38. APU AUTOMATIC COOL DOWN SHUTDOWN

GMT…….

EXT PWR ..... **ON**

APU MASTER SW ..... **OFF**

CHRONO ..... **START**

- APU BLEED VALVE CLOSES ..... ❑

HONEYWELL 36-300

- APU N DECREASES TO **75** % +/- 1 ..... ❑
- **AVAIL** LIGHT TURNS OFF WHEN N SLOWS TO BELOW **88** % ..... ❑

After about 1 min of cool down time elapsed

- APU SHUT DOWN CIRCUIT ACTIVATES ..... ❑

HONEYWELL 131-9

- APU N REMAINS AT **100** % ..... ❑

About 1 min after APU Bleed Closure

- APU SHUT DOWN CIRCUIT ACTIVATES ..... ❑
- **AVAIL** LIGHT TURNS OFF ..... ❑

Note: E/W AIR PACK 1 FAULT is triggered during this test

APIC/PWC APS 3200

- APU N REMAINS AT **100** % ..... ❑

After about 2 min of cool down time elapsed

- APU SHUT DOWN CIRCUIT ACTIVATES ..... ❑
- **AVAIL** LIGHT TURNS OFF ..... ❑

Note: E/W AIR PACK 1 FAULT is triggered during this test

CHRONO ..... **STOP/RESET**

APU BLEED ..... **OFF**

❑

S39. CREW OXYGEN

ECAM PAGE ..... **SET TO MEMO - DOOR**

ALL RMP ON INT ..... **SET**

CREW SUPPLY ..... **ON**

- CKPT OXY PRESSURE INDICATION GREEN ..... ❑
- CKPT OXY PRESSURE INDICATION SHALL BE WHITE (OXY GREEN WITH EIS 1) ..... ❑

QD OXYGEN MASK TO TEST AND RESET ..... **PRESS**

- OXYGEN BLINKERS OPERATE ..... ❑
- INTEGRATED MICROPHONE OPERATES (INT) ..... ❑

REMOVE CAPT QD OXYGEN MASK FROM THE STORAGE BOX

- HARNESS INFLATE ..... ❑
- N / 100 % SELECTOR FUNCTION (THEN LOCK IT ON 100%) ..... ❑
- PRESS TO TEST THE EMERGENCY FLOW (EXCEPT B/E AEROSPACE QDM) ..... ❑
- EMERGENCY FLOW & INTEGRATED MICROPHONE ..... ❑

REPEAT THE TEST FOR CM2, CM3 & CM4 (*) ..... ❑

CREW SUPPLY ..... **OFF**

- CKPT OXY PRESSURE INDICATION GOES AMBER ..... ❑

Depress all the QD OXYGEN MASK inflation levers to deplete residual oxygen

- AMBER **REGUL LO PR** MESSAGE APPEARS ..... ❑

Close all OXYGEN MASK storage compartment doors and press the PRESS TO TEST AND RESET or TEST RESET P/B

- INTEGRATED MICROPHONE FUNCTION IS INHIBITED ..... ❑

THE USED QD OXYGEN MASKS ARE RE-STOWED AFTER CLEANING AND DISINFECTION

❑

S40. VOR

EFIS CTL PNL 1&2 ..... **SET TO ROSE / VOR**

ADF-VOR SWITCH 1 – 2 ..... **SET TO VOR**

LS 1 - 2 ..... **PUSH**

ACP 1 OR 2 MKR TO RX ..... **SET**

MCDU 1/2 RAD NAV: VALID VOR 1/2 FREQUENCY ..... **INSERT**

MCDU 1/2 RAD NAV: VOR CRS **180**° ..... **INSERT**

- VOR 1/2 FREQUENCY AND CRS **180**° INDICATIONS APPEAR ON ND 1/2 ..... ❑
- DME 1/2 INDICATIONS MAY APPEAR ..... ❑

CFDS VOR 1(2) TEST ..... **PERFORM**

- MARKER **OM** INDICATION APPEARS ON PFD1/2 (**VOR 1 TEST ONLY**) ..... ❑
- MARKER AUDIO MAY BE GENERATED DEPENDING ON TYPE OF VOR ..... ❑

The following test sequence is visualized on the ND 1/2 and on the VOR/ADF DDRMI (*), provided the VOR mode is selected:

- VOR 1(2) RED FLAG ..... ❑
- VOR 1(2) NEEDLE DISAPPEARS (ND) ..... ❑

DDRMI (*)

- POINTER GOES TO 3 O'CLOCK POSITION ..... ❑
- POINTER REMAINS AT BEARING UNCHANGED (COLLINS DDRMI) ..... ❑
- VOR POINTER TO **180**° +/- 2 ..... ❑
- TEST OK ..... ❑

REPEAT CFDS TEST FOR VOR (2) ..... ❑

- SAME TEST SEQUENCE AS INDICATED FOR VOR1 APPLIES (EXCEPT MARKER) ..... ❑

Note: With Collins 900 VOR equipment, test sequence is activated on both VOR simultaneously.

❑

S41. DME

CFDS DME 1(2) TEST ..... **PERFORM**

ON ND 1 / 2

- DME 1 (2) RED FLAG - BLANKS SEQUENTIALLY APPEAR (EIS1) ..... ❑
- DME 1 (2) RED FLAG - DASHES - 0.0 SEQUENTIALLY APPEARS (EIS 2) ..... ❑

DDRMI (*)

- DME 1 (2) DISPLAY WINDOW BLANKS - DASHES - 0.0 SEQUENTIALLY APPEARS ..... ❑
- TEST OK ..... ❑

REPEAT CFDS TEST FOR DME (2) ..... ❑

S42. ATC

CFDS ATC 1(2) TEST ..... **PERFORM**

- **F** INDICATION OR **ATC FAULT** OR **FAIL** LAMP ..... ❑
- TEST OK ..... ❑

REPEAT CFDS TEST FOR ATC (2) ..... ❑

Note: On aircraft equipped with ACSS T3CAS P/N 90050000-10000, the FAIL lamp of the ATC/TCAS control panel is not lighted when a BITE test is performed on the ATC transponder 2.

❑

S43. ILS / MMR

EFIS CTL PNL ..... **SET TO ROSE / LS**

LS 1 & 2 ..... **ON**

ISIS LS (*) ..... **ON**

MCDU 1 - 2 RAD NAV: CURRENT IN SERVICE ILS ..... **INSERT**

- PFD 1/2 - ND 1/2 SHOW ILS FREQUENCY AND COURSE ..... ❑

MCDU 1 - 2 RAD NAV: ANY NON-LOCAL ILS FREQUENCY (EX: 109.9) ..... **INSERT**

CFDS **MMR 1** OR **ILS 1** TEST ..... **PERFORM**

Note:

1. *If CFDS/ NAV page displays ILS1/2 instead of MMR1/2 , apply AMM task 31-32-00-00 (reset CFDIU / as soon as CFDS prompt appears start chrono / wait 40 sec / press CFDS prompt.*
2. *The LOC/GS indications may not reach the full 1 dot left respectively the full 1 dot up positions as the test signal time figure is about 1sec slow when compared to the symbols transition time.*

- ILS1 **LOC/GS** ARE INDICATED ON PFD 1 - ND 2 AND ISIS (*) ..... ❑
- **LOC/GS** AND **ILS** FLAGS APPEAR ..... ❑
- ASSOCIATED ECAM WARNINGS MAY BRIEFLY APPEAR ..... ❑
- **LOC/GS** INDEX POSITION (1) CENTER, (2) 1 DOT LEFT /UP, (3) 1 DOT RIGHT/DOWN ..... ❑
- TEST OK ..... ❑

REPEAT CFDS TEST FOR ILS OR MMR 2 ..... ❑

- ILS2 **LOC/GS** ARE INDICATED ON PFD 2 - ND 1 BUT NOT ON ISIS (*) ..... ❑

ILS FREQUENCY ..... **CLEAR**

LS 1 & 2 ..... **OFF**

ISIS LS (*) ..... **OFF**

Note: The MMR test includes all the MMR functions (ILS, GPS ...)

❑

S44. ADF (*)

EFIS CTL PNL ..... **SET TO ROSE / NAV**

ADF-VOR SWITCH 1 & 2 ..... **SET TO ADF**

MCDU 1 - 2 RAD NAV: ADF FREQUENCY ..... **INSERT**

- ND 1(2) SHOW ADF 1(2) FREQUENCY ..... ❑

CFDS ADF 1 (2) TEST ..... **PERFORM**

The following test sequence is visualized on ND 1(2) and on the VOR/ADF DDRMI or ADF RMI (*) provided the ADF mode is selected

- ADF FLAG ..... ❑
- ADF POINTER TO RELATIVE BEARING **135**° +/- 5 ..... ❑
- TEST OK ..... ❑

DUAL ADF (*)

REPEAT THE TEST FOR ADF (**2**) ..... ❑

ADF-VOR SWITCH 1 & 2 ..... **SET TO OFF**

❑

S45. WEATHER RADAR

EFIS CTL PNL ..... **SET TO ARC**

SINGLE OR DUAL HWL RDR-4000 (*)

WXR CTL PNL CAPT AND F/O DISPLAY ..... **OFF**

WXR/PWS ..... **1 (2)**

ALL

CFDS RADAR 1 (2) TEST ..... **PERFORM**

- TEST PICTURE DISPLAYED ON ND 1 - 2 ..... ❑
- VERIFY ND OUTER BRIGHTNESS CONTROL FOR SMOOTH OPERATION ..... ❑
- TEST OK ..... ❑

The RADAR 1(2) TEST can be stopped at any moment by CFDS RETURN/TEST STOP activation hence the RADAR 1(2) TEST is stopped automatically after a time delay ranging from about 3 to 15 min

DUAL RADAR (*)

REPEAT TEST FOR RADAR (2) ..... ❑

THE RADAR POWER MUST BE SWITCHED OFF AFTER THE PROCEDURE IS COMPLETED.

❑

S46. ATSU – DCDU INTERFACE (*)

SATCOM (*) ..... **SET TO LOG OFF**

VHF3 (ON ANY RMP) ..... **SET ON VOICE MODE**

VALID FLT NBR ..... **INSERT**

Note: During ATSU power-up test the VHF3 will automatically be set to DATA. It must be reset to VOICE in order not to overload the ground station

CFDS TEST (INFO SYS > ATIMS) ..... **PERFORM**

Continue the test as described on the MCDU & DCDU

- TEST OK ..... ❑

VHF3 ..... **SET ON DATA MODE**

SATCOM (*) ..... **SET TO LOG ON**

❑

S47. GPWS (NOT ENHANCED)

ADIRS ALIGNMENT COMPLETED ..... **CHECK**

CM1 & CM2 LOUDSPEAKER VOLUME ..... **SET TO OFF**

MARK III, MARK V , OR **EGPWS (ENHANCED FUNCTION NOT ACTIVATED)**

(L) **GPWS - G/S** P/B ..... **PRESS AND RELEASE**

- **SYS FAULT** LIGHT ILLUMINATES ..... ❑
- **G/S** THEN THE GPWS LIGHT CAPTIONS BRIEFLY ILLUMINATES ..... ❑
- '**GLIDE SLOPE'**, '**WHOOP WHOOP-PULL UP'** AURAL MESSAGE IS BROADCASTED ..... ❑

NOTE: IF EGPWS (*): NO 'WHOOP WHOOP'

(R) **GPWS - G/S** P/B ..... **PRESS FOR ABOUT 5 SEC**

- **SYS FAULT** LIGHT ILLUMINATES ..... ❑
- **G/S** THEN **GPWS** LIGHT BRIEFLY ILLUMINATES ..... ❑
- FOLLOWING AURAL MESSAGES ARE BROADCASTED ..... ❑

GLIDE SLOPE, WHOOP WHOOP-PULL UP
SINK RATE, WHOOP WHOOP-PULL UP
TERRAIN, WHOOP WHOOP-PULL UP
DON'T SINK, DON'T SINK (ONLY ONE TIME IF MK V)
TOO LOW TERRAIN
TOO LOW GEAR
TOO LOW FLAPS
TOO LOW TERRAIN
GLIDE SLOPE
MINIMUMS, MINIMUMS (ONLY ONE TIME IF MK III)

CM1 & CM2 LOUDSPEAKER VOLUME ..... **AS REQUIRED**

❑

S48. EGPWS (ENHANCED GPWS)

ADIRS ALIGNMENT COMPLETED ..... **CHECK**

CM1 & CM2 LOUDSPEAKER VOLUME ..... **SET TO OFF**

(L) **PULL UP - GPWS** P/B ..... **PRESS BRIEFLY AND RELEASE**

- OVHD PANEL GPWS/SYS AND TERR 'FAULT' LIGHT ..... ❑

- "**GLIDE SLOPE, PULL UP**" AURAL AND PULL UP- **GPWS** LIGHT BRIEFLY ..... ❑

- "**TERRAIN AHEAD PULL UP**" ("**TERRAIN TERRAIN PULL UP**", *****) AURAL AND P/B TERR ON ND **ON** ..... ❑

RAAS (*)

- RUNWAY AWARENESS OK – METERS (MERIT <**37M** OR **0.02NM**) ..... ❑

- TERRAIN TEST PATTERN AND 'TERR TEST' MESSAGE APPEARS ON BOTH ND ..... ❑

Note: 'Pull Up-GPWS' PB may be replaced by a 'GPWS-G/S' P/B (*). The 'GPWS' light briefly illuminates with the 'pull up' aural message.

After the previous sequence is completed,

(L) **PULL UP – GPWS** P/B ..... **PRESS BRIEFLY WITHIN 3 SECONDS**

- "**CURRENT FAULT: NO FAULT**" IS BROADCASTED ..... ❑

(R) **PULL UP - GPWS** P/B ..... **PRESS FOR ABOUT 5 SEC**

- SYS FAULT AND TERR FAULT LIGHT ILLUMINATE AS LONG AS THE TEST SEQUENCE LASTS ..... ❑

- **PULL UP - GPWS** LIGHT CAPTIONS BRIEFLY ..... ❑

❑

- FOLLOWING AURAL MESSAGES ARE BROADCASTED ❑

GLIDE SLOPE, PULL UP

TERRAIN AHEAD, PULL UP (TERRAIN TERRAIN PULL UP, *)

RUNWAY AWARENESS OK – METERS (IF RAAS AND MERIT 1<37M OR 0.02NM)

SINK RATE, PULL UP

TERRAIN, PULL UP

DON'T SINK, DON'T SINK

TOO LOW TERRAIN

TOO LOW GEAR

TOO LOW FLAPS

TOO LOW TERRAIN

GLIDE SLOPE

MINIMUMS, MINIMUMS (*)

TOO LOW TERRAIN

TERRAIN AHEAD 2X (CAUTION TERRAIN 2X, *)

TERRAIN AHEAD PULL UP (TERRAIN TERRAIN PULL UP,*)

IF EGPWS OBSTABLE (*)

OBSTACLE AHEAD 2X (CAUTION OBSTACLE 2X, *)

OBSTACLE AHEAD PULL UP (OBSTACLE OBSTACLE PULL UP, *)

CM1 & CM2 LOUDSPEAKER VOLUME ..... **AS REQUIRED**

❑

S49. GPWS (T2CAS / T3CAS)

ADIRS ALIGNMENT COMPLETED ..... **CHECK**

CM1 & CM2 LOUDSPEAKER VOLUME ..... **SET TO OFF**

CFDS GPWC TEST ..... **PERFORM**

- OVHD PANEL GPWS/SYS AND TERR 'FAULT' LIGHT ILLUMINATE ..... ❑
- **PULL UP - GPWS** LIGHT BRIEFLY ILLUMINATES ..... ❑
- TERRAIN ON ND **ON** LIGHT ILLUMINATES ..... ❑
- TERRAIN TEST PATTERN AND 'TERR TEST' ARE DISPLAYED ON BOTH ND ..... ❑

- FOLLOWING AURAL MESSAGES ARE BROADCASTED ..... ❑

  TERRAIN AWARENESS TEST START
  TERRAIN AWARENESS SYSTEM PASSED
  TERRAIN AWARENESS TEST COMPLETE

TERR ON ND P/B ..... **PRESS**

CM1 & CM2 LOUDSPEAKER VOLUME ..... **AS REQUIRED**

❑

S50. HEAD UP DISPLAY (*)

HUD 1ST GENERATION (*)

HUD DISPLAY WINDOW ..... **OUT**

- CHECK THE HUD BRIGHTNESS CONTROL FOR SMOOTH OPERATION ..... ❑

Check after a few sec the HUD display shows the following data:

- A/C AXIS SYMBOL ..... ❑
- CAS 30 ..... ❑
- HORIZON, HEADING AND PITCH ATTITUDE SCALES ..... ❑

HUD BRIGHTNESS CONTROL ..... **SET TO OFF**

HUD DISPLAY WINDOW ..... **IN**

HUD 2ND GENERATION (*)

HUD DISPLAY WINDOW ..... **EXTEND AND LOCK**

HUD POTENTIOMETER ..... **SET TO ON**

Check that HUD shows following data:

- HORIZON, HEADING AND PITCH ATTITUDE SCALES ..... ❑
- ALTITUDE SCALE ..... ❑
- SPEED SCALE ..... ❑
- ROTATION ATTITUDE INDICATOR ..... ❑

CHECK THE HCU BRIGHTNESS CONTROL FOR SMOOTH OPERATION ..... ❑

HUD POTENTIOMETER ..... **SET TO OFF**

HUD DISPLAY WINDOW ..... **RETRACT**

❑

S51. PARAVISUAL INDICATOR (*)

ON/OFF SWITCH ..... **SET TO ON**

- L/R OUTER MARKS ILLUMINATE ..... ❑

TEST ..... **PRESS AND HOLD**

- **AUTOLAND** LIGHT WARNING LIGHT ILLUMINATES ..... ❑
- L/R OUTER MARKS DISAPPEAR ..... ❑
- ILS SYMBOL APPEARS IN THE CENTRE POSITION ..... ❑
- ILS SYMBOL MOVES TO FULL RIGHT, FULL LEFT AND BACK TO THE CENTER ..... ❑

TEST ..... **RELEASE**

ON/OFF SWITCH ..... **SET TO OFF**

❑

S52. TCAS

EFIS ND 1 - 2 ..... **SET TO ROSE MODE**

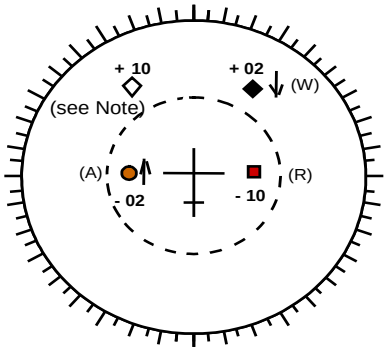
EFIS ND 1 - 2 RANGE ..... **SET TO 10**

ATC SETTINGS ..... **STBY - SYSTEM 1 (2) - ALT RPTG ON**

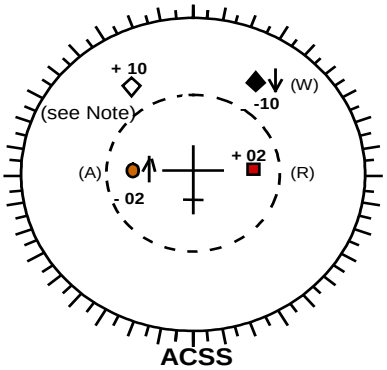
CFDS TCAS TEST ..... **PERFORM**

Note: TCAS TEST message might be broadcasted (Honeywell or ACSS)

- THE FOLLOWING TCAS TEST DATA ARE INDICATED ON THE ND 1/2 ..... ❑



Allied Signal/Honeywell TPA100A/B



ACSS
or Rockwell-Collins

Note: If ADS-B/ATSAW installed, A/C symbol is displayed as well

The following TCAS test data are indicated on the PFD 1/2:

- GREEN (GRAY IF EIS 1) SECTOR RANGES FROM **+2000FT/MIN** TO **-250FT/MIN** AND RED SECTORS COVER V/S SCALE EXTREMITIES ..... ❑
- V/S NEEDLE REMAINS AT ZERO ..... ❑
- PFD SPEED SCALES GRAY BACKGROUNDS DISAPPEAR (EIS 1) ..... ❑

When the TCAS TEST is satisfactorily completed:

- ND 1/2 AND THE PFD 1/2 TCAS TEST INDICATIONS DISAPPEAR ..... ❑

The following audio message is broadcasted:

- TCAS SYSTEM TEST OK (OR TCAS TEST PASSED) ..... ❑

The following message appears on the MCDU:

- TEST OK (OR TEST PASSED) ..... ❑
- PFD SPEED SCALE GRAY BACKGROUND APPEARS (EIS 1) ..... ❑

❑

S53. ADC (EIS1) (HONEYWELL • NORTHROP GRUMMAN - EX LITTON)

CFDS / ADR 1(2) (3) AOA SENSOR TEST ..... **PERFORM**

- "**STALL"** AURAL AND MASTER WARNINGS APPEAR ..... ❑

- GPWS SYS AND TERR P/B (IF ENHANCED ACTIVATED) FAULT ILLUMINATE ..... ❑

IF INCIDENCE INDICATOR AND **FOR CFDS/ADR 1(2) AOA SENSOR TEST ONLY**:

- AOA NEEDLE POSITIONS AT A VALUE RANGING BETWEEN **21.4°** AND **19.4°** DEPENDING OF A/C, ENGINE TYPE & ACTUAL FLAPS CONFIG. WITH A TOLERANCE OF +/-**1.3**° ..... ❑

REPEAT THE TEST FOR ADR (2) AND (3) ..... ❑

Note: GPWS SYS check is not required during ADR (2) and (3) test.

CFDS NAV - ADR 1(2) (3) INTERFACE TEST ..... **PERFORM**

After about 10 sec the following test data are generated:

- ALT **10000 FT** ..... ❑
- IAS **367,7 KT** ..... ❑
- M **.66** ..... ❑
- TAS **433 KT** ..... ❑
- TAT/SAT **35/10°C** ..... ❑

- MW VLE - VFE (***EXCEPT IF FLAPS 0***) AND VMO/MMO WARNINGS TOGETHER WITH MC ALTI DISCREPANCY WARNING APPEAR ..... ❑

- MAGENTA LDG INHIBIT MEMO APPEARS *(if ECP Recall key has been pressed previously message might not appear during first attempt)* ..... ❑

- "**RETARD**" AURAL MESSAGE MAY BE BROADCASTED REPEATEDLY ..... ❑

REPEAT THE TEST FOR ADR (2) ..... ❑

AIR DATA SWITCHING ..... **CAPT 3**

REPEAT TEST FOR ADR (3) ..... ❑

After the ADR (3) test is completed:

AIR DATA SWITCHING ..... **SET TO NORM**

❑

S54. ADC (EIS 2) (HONEYWELL • NORTHROP GRUMMAN - EX LITTON)

CFDS - NAV - ADR 1(2)(3) OUTPUT TESTS - AOA SENSOR TEST ..... **PERFORM**

- "**STALL"** AURAL AND MASTER WARNINGS APPEAR ..... ❑

- OVERHEAD PANEL, GPWS SYS AND TERR P/B (IF ENHANCED ACTIVATED) GO IN **FAULT** WITHIN ABOUT 60 SEC (MK V) ..... ❑

REPEAT THE TEST FOR ADR (2) AND (3) ..... ❑

Note: GPWS SYS check is not required during ADR 2 and 3 test.

CFDS NAV - ADR 1(2)(3) OUTPUT TESTS - INTERFACE TEST ..... **PERFORM**

After about 10 sec, following test data are generated:

- ALT	**10000 FT** ..... ❑
- IAS	**367,7 KT** ..... ❑
- M	**.660** ..... ❑
- TAS	**433 KT** ..... ❑
- TAT/SAT	**35/10°C** ..... ❑

- MW OVERSPEED VLE - VFE (***EXCEPT IF FLAPS: 0***) AND VMO/MMO WARNINGS TOGETHER WITH THE MC NAV ALTI DISCREPANCY WARNING APPEAR ..... ❑

- MAGENTA LDG INHIBIT MEMO APPEARS (if ECP RCL key has been pressed previously message might not appear during first attempt) ..... ❑

- "**RETARD**" AURAL MESSAGE MAY BE BROADCASTED ..... ❑

REPEAT THE TEST FOR ADR (2) AND (3) ..... ❑

❑

S55. BACKUP SPEED SCALE - BUSS (*)

WITHOUT REVERSIBLE BUSS OPTION

ADR 1+2+3 P/B ..... **OFF**

- ON CAPT & F/O PFD BACK-UP SPEED SCALE & GPS ALTITUDE DISPLAYED WITH TWO LAST DIGITS DASHED ..... ❑

ADR 1+2+3 P/B ..... **ON**

- CAPT & F/O PFD ADIRS SPEED & ALTITUDE SCALES ARE DISPLAYED ..... ❑

WITH REVERSIBLE BUSS OPTION

CAPT (F/O) BKUP SPD/ALT P/B ..... **ON**

- ON CAPT (F/O) PFD AOA SCALE & GPS ALTITUDE SCALE ARE DISPLAYED ..... ❑
- ECAM CAUTION "*NAV BKUP SPD/ALT*" ON CAPT (F/O) PFD APPEARS ..... ❑
- ECAM MEMO: "BKUP SPD/ALT" APPEARS ..... ❑

CAPT (F/O) BKUP SPD/ALT P/B ..... **OFF**

- ON CAPT (F/O) PFD SPEED SCALE & ALTITUDE SCALE ARE DISPLAYED ..... ❑
- ECAM CAUTION "NAV BKUP SPD/ALT" ON CAPT (F/O) PFD DISAPPEARS ..... ❑
- ECAM MEMO: "BKUP SPD/ALT" DISAPPEARS ..... ❑

REPEAT TEST FROM F/O SIDE ..... ❑

S56. ISIS (*)

BUGS AND **LS** KEYS (AT LEAST 3 SECONDS) ..... **PRESS**

ISIS TEST MENU, «FUNCTIONAL TEST» ..... **PERFORM**

- AFTER TEST COMPLETION « TEST OK » IS DISPLAYED ..... ❑

TO EXIT TEST MENU, « RST » KEY ..... **PRESS**

❑

S57. IRS (HONEYWELL • NORTHROP GRUMMAN - EX LITTON)

ON ADIRS CDU (*), DISPLAY SYS 1 (2) (3) ..... **PRESS**

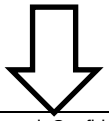
CFDS IR 1 (2) (3) IRU - INTERFACE ..... **PERFORM**

- **ON BAT** AND FAULT/ALIGN LIGHTS BRIEFLY ILLUMINATE ..... ❑
- ECAM **NAV IR 1(2)(3) FAULT** INDICATIONS BRIEFLY APPEAR ..... ❑
- **ENT** AND **CLR** KEY BRIEFLY ILLUMINATE (CDU HONEYWELL ONLY) ..... ❑

After about 2 sec the following test data are generated but indication tolerances may apply:

- PITCH	5° UP / ROLL 45° R	(PFD)	❑
- V/S	600 FT/MIN DOWN	(PFD)	❑
- GS	200 KT	(ND)	❑
- WIND	030/100	(ND)	❑
- HDG	015	(PFD-ND)	❑
- TRACK	005	(PFD-ND)	❑
- DRIFT	10° L	(PFD-ND)	❑
- SIDE SLIP	0.1 G (L)	(PFD)	❑
- TRUE HDG	10.0°	(WITH CDU ONLY)	❑
- PPOS N/E	22.30.0 TEST FIGURES ARE DISPLAYED (WITH CDU ONLY *)		❑

- **CHECK ATT** AND **CHECK HDG** INDICATIONS APPEAR ..... ❑
- ASSOCIATED ECAM WARNINGS ARE TRIGGERED ..... ❑



❑

DDRMI OR RMI (*)

MAGNETIC HEADING IS INDICATED AT **015** PROVIDED VOR IS SELECTED (***DURING THE IR1 AND (3) TEST***) ❑

CFDS RETURN (***TEST STOP***) **ACTIVATE**

REPEAT THE TEST FOR IR (2) AND (3) ❑

*Note: for IR (**3**), select ATT HDG to CAPT 3 for test then back to NORM after test completion*

NORTH REF

EFIS ND 1 - 2 **ROSE VOR**

NORTH REF **TRUE**

- **TRUE** INDICATION IS DISPLAYED ON PFD1&2 AND ND1&2 ❑

NORTH REF **MAG**

❑

S58. RADIO ALTIMETER

C/B **K12** (**K11**) (**RAD ALTM 2(1)**) ..... **PULL**

CFDS RA 1(**2**) TEST (**ARINC OR SYSTEM TEST**) ..... **PERFORM**

- RA 40 FT IS INDICATED ON PFD 1/2 ..... ❑
- ACO "**40**" AND/OR "**41**" AND/OR "**42**" IS/ARE BROADCASTED ..... ❑
- **TEST OK** APPEARS AFTER THE TEST SEQUENCE IS COMPLETED ..... ❑

C/B **K12** (**K11**) ..... **PUSH**

REPEAT THE TEST FOR RA (**2**) ..... ❑

S59. GPS

MMR COLLINS, **THALES** OR **GPS LITTON (*)**

MCDU1 (2) FMGC / DATA / GPS MONITOR PAGE ..... **SELECT**
INTEGRITY OF GPS 1 AND 2 DATA ..... **CHECK**
- GPS POSITION — PRESENT A/C POSITION ..... ❑
- MODE — NAV ..... ❑
- MERIT — CLOSE OR BELOW 100M (300FT) ..... ❑

GPS HONEYWELL (*)

CFDS GPSSU 1(2) TEST ..... **PERFORM**
- **TEST OK** APPEARS AFTER THE TEST SEQUENCE IS COMPLETED ..... ❑

REPEAT THE TEST FOR GPSSU (2) ..... ❑

❑

S60. FMGC – AFS

FLEX TO TEMP FROM EITHER MCDU 1 (2) PERF PAGE ..... **CLEAR**

AFS TEST

CFDS AFS TEST ..... **PERFORM**

- FAC 1/2: PASS - FMGC 1/2: PASS ..... ❑

WINDSHEAR TEST

CFDS WINDSHEAR TEST ..... **PERFORM**

- TEST OK ..... ❑

S61. RNP (*)

RNP P/B ..... **ON**

- **ON** LIGHT ILLUMINATES ..... ❑
- LAT DEV SCALE IS DISPLAYED ON PFD1/2 ..... ❑

EIS DMC **CAPT3**

- LAT DEV SCALE REMAIN DISPLAYED ON PFD1/2 ..... ❑

EIS DMC ..... **NORM**
RNP P/B ..... **OFF**

❑

S62. BLOWER – EXTRACT (EIS 1)

ECAM PAGE ..... **SET TO PRESS**

C/B **AD 10** (**AVNCS VENT BLOWER FAN**) ..... **PULL**

- BLOWER FAULT LIGHT ILLUMINATES ..... ❑
- INLET AND VENT GO AMBER ..... ❑

After about 30 sec:

- ECAM **VENT** WARNING APPEARS ..... ❑
- NOSE GEAR STATION WARNINGS APPEAR ..... ❑

EXTERNAL HORN FROM THE EXT PWR PANEL ..... **RESET**

C/B **AD 10** ..... **PUSH**

BLOWER ..... **OVRD / AUTO**

C/B **AE2** OR C/B **AC4** (**AVNCS VENT EXTC FAN**) ..... **PULL**

- EXTRACT FAULT LIGHT ILLUMINATES ..... ❑
- EXTRACT AND VENT GO AMBER ..... ❑

After about 30 sec:

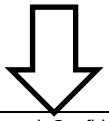
- ECAM **VENT** WARNING APPEARS ..... ❑
- NOSE GEAR STATION WARNINGS APPEAR ..... ❑

EXTRACT ..... **OVRD**

- FAULT LIGHT EXTINGUISHES ..... ❑
- INLET AND EXTRACT VALVES CLOSE ..... ❑

BLOWER ..... **OVRD**

- EXTRACT VALVE OPENS HALF WAY ..... ❑
- INLET VALVE REMAINS CLOSED ..... ❑
- PFD 1/2 GRAY BACKGROUNDS DISAPPEAR ..... ❑



❑

C/B **AE 2** OR **AC 4** ..... **PUSH**

BLOWER / EXTRACT ..... **AUTO**

PFD 1/2 GRAY BACKGROUNDS APPEAR ..... ❑

C/B **Y17** (**AIR COND - AVNCS VENT MONG**) ..... **PULL**

- BLOWER & EXTRACT FAULT LIGHTS ILLUMINATE ..... ❑
- INLET / EXTRACT AND VENT GO AMBER ..... ❑
- PFD 1/2 GRAY BACKGROUNDS DISAPPEAR ..... ❑
- INLET & EXTRACT VALVE SYMBOLS MAY GO **XX** OCCASIONALLY ..... ❑

After about 15 sec:

ECAM **VENT** WARNING APPEARS ..... ❑

After a further 15 sec:

NOSE GEAR STATION WARNINGS APPEAR ..... ❑

C/B **Y17** ..... **PUSH**

NOSE GEAR STATION WARNINGS DISAPPEAR ..... ❑

PFD 1/2 GRAY BACKGROUNDS APPEAR ..... ❑

ECAM PAGE ..... **SET TO MEMO - DOOR**

❑

S63. BLOWER – EXTRACT (EIS 2)

ECAM PAGE ..... **SET TO PRESS**

C/B **AD 10** (**AVNCS VENT BLOWER FAN**) ..... **PULL**
- BLOWER FAULT LIGHT ILLUMINATES ..... ❑
- BLOWER VENT IS DISPLAYED AMBER ..... ❑

After about 30 sec:
- ECAM **VENT BLOWER FAULT** WARNING APPEARS ..... ❑
- NOSE GEAR STATION WARNINGS APPEAR ..... ❑

RESET the EXTERNAL HORN from the EXT PWR panel

C/B **AD 10** ..... **PUSH**

BLOWER ..... **OVRD / AUTO**

C/B **AE2** (**AC4** FOR A321) (**AVNCS VENT EXTC FAN**) ..... **PULL**
- EXTRACT FAULT LIGHT ILLUMINATES ..... ❑
- VENT EXTRACT IS DISPLAYED AMBER ..... ❑

After about 30 sec:
- ECAM **VENT EXTRACT FAULT** WARNING APPEARS ..... ❑
- NOSE GEAR STATION WARNINGS APPEAR ..... ❑

EXTRACT ..... **OVRD**
- FAULT LIGHT EXTINGUISHES ..... ❑
- INLET AND OUTLET VALVES CLOSE ..... ❑

BLOWER ..... **OVRD**
- OUTLET VALVE OPENS HALF WAY ..... ❑
- INLET VALVE REMAINS CLOSED ..... ❑
- BLOWER VENT EXTRACT GOES AMBER ..... ❑

❑

C/B **AE2** (**AC4** FOR A321) ..... **PUSH**

BLOWER / EXTRACT ..... **AUTO**

C/B **Y17** (**AIR COND - AVNCS VENT MONG**) ..... **PULL**

- BLOWER / EXTRACT FAULT LIGHTS ILLUMINATE ..... ❑
- BLOWER / VENT / EXTRACT GO AMBER ..... ❑

After about 15 sec:

- ECAM VENT AVNCS SYS FAULT WARNINGS APPEAR ..... ❑

After a further 15 sec:

- NOSE GEAR STATION WARNINGS APPEAR ..... ❑

C/B Y17 ..... **PUSH**

- NOSE GEAR STATION WARNINGS DISAPPEAR ..... ❑

ECAM PAGE ..... **SET TO MEMO - DOOR**

❑

S64. GROUND COOL UNIT (*)

The following procedure is applicable only if the GND COOL unit is running.
The GND COOL running is enabled when the avionics air inlet temperature is at/or above 22°C (71°F)

C/B **AC11** (**VENT GND COOL FAN**) ..... **PULL**

After about 60 sec:

- GND COOL UNIT STOPS ..... ❑
- FAULT LIGHT ILLUMINATES ..... ❑
- MC AND ASSOCIATED ECAM MESSAGE APPEARS ..... ❑

After a further 30 sec:

- EXTERNAL HORN SOUNDS ..... ❑
- EXT PWR PANEL ADIRU & AVNCS VENT LIGHT ILLUMINATE ..... ❑

Note: wait at least 3 minutes before to select again the GRD COOL ON, if required

C/B **AC11** ..... **PUSH**
GND COOL ..... **AS REQUIRED**

S65. CABIN FANS

ECAM PAGE ..... **SET TO COND**

- NONE OF THE CABIN FAN WARNING IS DISPLAYED ..... ❑

ECAM PAGE ..... **SET TO MEMO - DOOR**

Note: any indicated fan warning is cancelled by momentary CAB FAN P/B reset.

❑

S66. LAVATORY SMOKE DETECTION

CFDS SMOKE DET LAV ..... **PERFORM**

- WALL MOUNTED LOCAL AMBER CALL LIGHT IS FLASHING ..... ❑
- AREA CALL PANEL AMBER LIGHT IS FLASHING ..... ❑
- AIP (AND FAP IF ENHANCED CIDS) DISPLAY “SMOKE LAV X” MESSAGE ..... ❑
- TEST OK MESSAGE IS DISPLAYED AFTER TEST COMPLETION ..... ❑

S67. CARGO COMPARTMENT SMOKE DETECTION

FORWARD CARGO COMPARTMENT

CFDS SMK LOOPS (DET) FWD LDCC TEST ..... **PERFORM**

- LOOP A/B MESSAGE IS DISPLAYED (EXCEPT WITH ENHANCED CIDS) ..... ❑
- TEST OK MESSAGE IS DISPLAYED AFTER TEST COMPLETION ..... ❑

FWD CARGO VENTILATION (*)

C/B **C8** (**AIR COND/FWD CARGO/VENT/CTL&MONG**) ..... **PULL/PUSH**

AFT CARGO COMPARTMENT

CFDS SMK LOOPS (DET) AFT LDCC TEST ..... **PERFORM**

- LOOP A/B MESSAGE IS DISPLAYED (EXCEPT WITH ENHANCED CIDS) ..... ❑
- TEST OK MESSAGE IS DISPLAYED AFTER TEST COMPLETION ..... ❑

AFT CARGO VENTILATION (*)

C/B **C7** (**AIR COND/AFT CARGO/VENT/CTL&MONG**) ..... **PULL/PUSH**

❑

S68. CARGO SMOKE FWD/AFT (REMOTE TEST)

ECAM PAGE ..... **SET TO MEMO - DOOR**
TEST ..... **PRESS AND HOLD**

FLOW METERED CONFIGURATION (*)

- DISCH 1(2) LIGHT(S) ILLUMINATE ..... ❑
- DISCH AGENT 2 LIGHT ILLUMINATES AFTER A FEW SEC ..... ❑
- MC AND ASSOCIATED ECAM MESSAGE DISCH AGENT 2 APPEAR (EXCEPT WITH ENHANCED CIDS) ..... ❑

SINGLE SHOT CONFIGURATION (*)

- DISCH LIGHT(S) ILLUMINATE ..... ❑

ALL CONFIGURATION

After about 5 sec:

- AREA SMOKE LIGHT(S) ILLUMINATE ..... ❑
- MW AND ASSOCIATED ECAM MESSAGE FOR SMOKE CARGO APPEAR ..... ❑
- ECAM COND PAGE APPEARS ..... ❑

FWD/AFT CARGO VENTILATION (*)

Within about 20 sec:

- ISOL VALVE(S) IS/ARE INDICATED CLOSED ON THE ELD ..... ❑
- ECAM MESSAGE IS CORRECTED ACCORDINGLY ..... ❑

ALL CONFIGURATION

TEST ..... **RELEASE**

After about 5 sec:

- ISOL VALVE(S) IS (ARE) INDICATED OPEN ON THE ELD (FWD/AFT CARGO VENTILATION *) ..... ❑
- ALL THE OVERHEAD PANEL INDICATIONS DISAPPEAR ..... ❑
- MW AND ASSOCIATED ECAM MESSAGE FOR CARGO SMOKE DISAPPEAR ..... ❑

After about 5 sec:

- MW AND ASSOCIATED CARGO SMOKE MESSAGE COME ON ANOTHER TIME FOR ABOUT 5 SEC ..... ❑

❑

S69. CABIN PRESSURE

ECAM PAGE ..... **SET TO PRESS**

FMGC 1 – 2 ..... **LOAD VALID F/PLN**

LDG ELEV **14000FT**

CFDS CPC 1(2) TEST/ CALIBRATION ..... **PERFORM**

- TEST OK ..... ❑

REPEAT TEST CPC (2) ..... ❑

LDG ELEV ..... **AUTO**

- ASSESS THE AUTO DETENT LOCK ..... ❑

S70. RESIDUAL PRESSURE CONTROL UNIT (*)

C/B X23 (**RPCU**) ..... **PULL**

CABIN PRESS MODE SEL ..... **MAN**

MAN V/S CTL ..... **HOLD TO DN**

- OUTFLOW VALVE OPERATES TOWARDS CLOSED POSITION ..... ❑

MAN V/S CTL ..... **RELEASE**

C/B X23 ..... **PUSH**

- OUTFLOW VALVE FULLY OPENS ..... ❑

MAN V/S CTL ..... **HOLD TO DN**

- OUTFLOW VALVE STARTS TO CLOSE FOR APPR. **10** SEC ..... ❑

- OUTFLOW VALVE DOES NOT CLOSE FURTHER & STARTS TO OPEN ..... ❑

- OUTFLOW VALVE OPENS TO THE FULLY OPEN POSITION ..... ❑

MAN V/S CTL ..... **RELEASE**

CABIN PRESS MODE SEL ..... **AUTO**

ECAM PAGE ..... **SET TO MEMO - DOOR**

❑

S71. ANTI-ICE

ICE DETECTOR (*)

CFDS ICE DETECTOR 1 (2) TEST ..... **PERFORM**

- THE MC AND ASSOCIATED ECAM MESSAGE BRIEFLY APPEAR ..... ❑
- TEST OK APPEARS ..... ❑

REPEAT TEST FOR ICE DETECTOR (2) ..... ❑

ENGINE ANTI ICE

NEO

ENG 1 (2) FADEC GND PWR ..... **ON**

ENG 1(2) ANTI ICE ..... **ON**

- **ON** LIGHT ILLUMINATES WITHOUT E/W ..... ❑
- ***ENG A. ICE*** MEMO APPEARS IN GREEN ..... ❑

ENG 1(2) ANTI ICE ..... **OFF**

ENG 1 (2) FADEC GND PWR ..... **OFF**

REPEAT THE PROCEDURE FOR ENG (2) ..... ❑

CEO

ENG 1(2) ANTI ICE ..... **ON**

- **ON** AND **FAULT** LIGHTS ILLUMINATE WITHOUT E/W ..... ❑
- ***ENG A. ICE*** MEMO APPEARS IN GREEN ..... ❑

ENG 1(2) ANTI ICE ..... **OFF**

REPEAT THE PROCEDURE FOR ENG (2) ..... ❑

❑

S72. PROBE/WINDOW HEAT

CFDS ICE & RAIN / WINDOW HEAT CMPTR 1(2) TEST ..... **PERFORM**

- TEST OK ..... ❑

REPEAT TEST FOR WHC (2) ..... ❑

CFDS ICE& RAIN / PROBES HEAT CMPTR 1(2)(3) TEST ..... **PERFORM**

- TEST OK ..... ❑

REPEAT TEST FOR PHC (2) (3) ..... (2)❑ (3)❑

PROBE/WINDOW HEAT ..... **ON**

- **ON** LIGHT ILLUMINATES ..... ❑

EIS 1 (*)

AIR DATA ..... **F/O 3**

- TAT (1) DISPLAYED ON SD DOES NOT INCREASE ..... ❑

AIR DATA ..... **NORM**

EIS 2 (*)

ECAM/ND XFR ..... **F/O**

- TAT (2) DISPLAYED ON ND2 DOES NOT INCREASE ..... ❑

ECAM/ND XFR ..... **NORM**

PROBE/WINDOW HEAT ..... **AUTO**

Note: The TAT 1/2 indicated values may not be equal as a consequence the TAT 1/2 probes are not ventilated identically when static and differ from the reported OAT

❑

S73. FUEL

ECAM PAGE ..... **SET TO FUEL**

CROSS FEED VALVES OPERATION

C/B **A 12** (**X - FEED VALVE MOT 1**) ..... **PULL**

X - FEED ..... **OPEN**

- **ON** LIGHT ILLUMINATES ..... ❑

- **OPEN** LIGHT REMAINS EXTINGUISHED ..... ❑

- X - FEED VALVE SYMBOL IN-LINE ..... ❑

- ECAM MEMO: "**FUEL X FEED"** APPEARS ..... ❑

X - FEED ..... **OFF**

C/B **A 12** ..... **PUSH**

C/B **M 24** (**N 27** FOR CJ) (**X FEED VALVE MOT 2**) ..... **PULL**

X - FEED ..... **OPEN**

- **ON** AND **OPEN** LIGHTS ILLUMINATE ..... ❑

- X - FEED VALVE SYMBOL IN-LINE ..... ❑

- ECAM MEMO: "**FUEL X FEED"** APPEARS ..... ❑

C/B **M 24** (**N 27** FOR CJ) ..... **PUSH**

X - FEED ..... **OFF**

❑

TRANSFER VALVES OPERATION (A321 & A319/A320 WITH CTR TK JET PUMP XFER SYSTEM)

FUEL PUMPS ..... **ON**

MODE SEL ..... **MAN**

- **MAN** LIGHT ILLUMINATES ..... ❑

- FUEL TRANSFERS FROM THE CTR TK INTO THE ADJACENT L/R WING TANKS (provided not at HI LVL and the associated transfer arrows appear) ..... ❑

Note: In case of HI LVL in left/right wing tanks transfer can lead to fuel spillage (automatic stop inhibited due to MAN mode)

CTR TK L - R XFR ..... **OFF**

- **OFF** LIGHT ILLUMINATES ..... ❑

- ALL THE PRECEDING FUEL TRANSFERS INDICATIONS DISAPPEAR ..... ❑

CTR TK L - R XFR ..... **ON**

MODE SEL ..... **AUTO**

- **OFF** AND **MAN** LIGHTS EXTINGUISH ..... ❑

FUEL PUMPS ..... **OFF**

❑

S74. REMOTE REFUEL

REFUEL PWR (**51VU**) ..... **ON**

- **ON** LIGHT ILLUMINATED ..... ❑

- **CKPT** LIGHT ILLUMINATED ..... ❑

Within about 30 sec the refuel system is powered

REFUEL CTL ..... **ON**

- **ON** LIGHT ILLUMINATES ..... ❑

- CHECK THE INC/DEC FUNCTIONS ..... ❑

Note: On A318, A319 or A320, it may be not possible to decrease the pre-selected value back to the actual value.

- CHECK THE GREEN READY FOR REFUELLING LIGHT(S) ADJACENT TO THE FUEL SERVICE COUPLING(S) ILLUMINATE(S) IF THE END CONDITION IS NOT ACTIVE ..... ❑

Note:

- The END condition is active and the END light blinks (A318, A319 or A320) or steady (A321) if either:

the PRE SELECTED quantity is reached when on REFUEL, or when all the fuel tank HI LVL lights are illuminated.

- On A318, A319 or A320, it may be not possible to obtain the END condition even if the pre-selected value is equal to the actual value (remote refuel panel).

REFUEL CTL ..... **OFF**

REFUEL PWR ..... **OFF**

The remote refuel system status lights extinguish

❑

S75. ADDITIONAL CENTER TANK (*)

IF A319CJ (1 TO 6 ACT OPTION)

REFUEL / DEFUEL ACCESS PANEL ..... **OPEN**

From 800VU, ensure during XFR from ACTs to CTR tank:

- HI LVL FROM CTR TANK REMAINS OFF ..... ❑

ACT SELECTOR KNOB ..... **SELECT EACH ACT IN SEQUENCE**

- ACT QUANTITY INDICATOR SHOWS THE ACT FUEL QUANTITY SELECTED ..... ❑

ECAM PAGE ..... **SET TO FUEL**

ACT XFR MODE SEL P/B ..... **MAN**

ACT XFR SELECTOR ..... **SELECT INSTALLED ACT IN SEQUENCE**

- FUEL TRANSFERS FROM THE SELECTED ACT TOWARDS CTR TK ..... ❑

ACT XFR SELECTOR ..... **OFF**

ACT XFR MODE SEL P/B ..... **AUTO**

- FUEL TRANSFER STOPS ..... ❑

REFUEL / DEFUEL PANEL ACCESS DOOR ..... **CLOSE**

❑

A318 ELITE /A319 /A320/A321 (1 TO 2 ACT OPTION)

REFUEL / DEFUEL ACCESS PANEL ..... **OPEN**

ECAM PAGE ..... **SET TO FUEL**

ACT P/B (**40VU**) ..... **FWD**

- **FWD** LEGEND COMES ON AND **FAULT** LEGEND COMES ON MOMENTARILY ..... ❑

- ON SD, FULLY GREEN TRIANGLE COMES ON ..... ❑

- ACT FUEL QUANTITY DECREASE AND THE CTR TK QUANTITY INCREASES ..... ❑

Note: Transfer starts from ACT 2, when empty for 1 min, from ACT 1

ACT P/B (**40VU**) ..... **AUTO**

- FUEL TRANSFER STOPS AND GREEN TRIANGLE DISAPPEARS ..... ❑

REFUEL / DEFUEL PANEL ACCESS DOOR ..... **CLOSE**

Note:

- *The ACT content may still reduce a bit (10 - 30 kg) up to 1 min after the XFR stopped*
- *ACT TRANSFER FAULT may appear if CTR TANK has less than 3000kg (6600lbs) for more than one minute and any ACT has more than 250kg (550lbs) for A319/320/321*

❑

S76. HYDRAULIC POWER

Prior to operate either ELEC PUMP or/and the PTU, ascertain the hydraulic systems reservoir levels are normal with neither reservoir LO AIR PRESS message indicated.

Reservoir LO AIR PRESS message disappears for reservoir air pressure at or above 25 psi +/- 2 increasing pressure only.

Hence the use of either ELEC PUMP or/and the PTU are authorized and the LO AIR PRESS message is disregarded provided the APU is running and the APU BLEED P/B is ON to pressurize the hydraulic systems reservoirs

ECAM PAGE ..... **SET TO HYD**

PTU ..... **OFF**

YELLOW ELEC PUMP ..... **ON**

- Y HYD PRESS: **3000** PSI +/- **200** ..... ❑

YELLOW ELEC PUMP ..... **OFF**

BLUE ELEC PUMP ..... **AUTO**

BLUE PUMP OVRD ..... **ON**

- B HYD PRESS: **3000** PSI +/- **200** ..... ❑

PTU ..... **AUTO**

YELLOW ELEC PUMP ..... **ON**

- G HYD PRESS BETWEEN **2200** PSI & **3150** PSI ..... ❑

- PTU STARTS OPERATION (*BREAK OUT PRESSURE*) BETWEEN **2200** PSI & **2850** PSI ..... ❑

- PTU STOPS OPERATION (*STALL PRESSURE*) BETWEEN **2700** PSI & **3150** PSI ..... ❑

❑

S77. ELAC SHARKLETS FUNCTION ACTIVATION CHECK (CEO)

This test allows determining if the ELAC's software is in line with the sharklets or wingtip fences status.

ADIRU ..... **ALIGNED**

ENG 1, 2 FADEC GND PWR ..... **ON**

THROTTLE LEVERS ..... **IDLE**

FLAPS **2**

SIDESTICKS ..... **NEUTRAL**

On MCDU select AIDS / CALL UP PARAM ALPHA and monitor ELEV parameter

ELAC 1 ..... **OFF**

B LEAK MEASUREMENT VALVES ..... **OFF**

Record:	A THR AT IDLE	B THR AT TOGA/MCT	A-B DELTA	
ELEV…FCDC 1				WINGTIP FENCE **0°** (+/- 0.1°) ..... ❑ SHARKLET >= **0.4**° ..... ❑

ELAC 1 ..... **ON**

B LEAK MEASUREMENT VALVES ..... **ON**

ELAC 2 ..... **OFF**

G LEAK MEASUREMENT VALVES ..... **OFF**

Y LEAK MEASUREMENT VALVES ..... **OFF**

Record:	A THR AT IDLE	B THR AT TOGA/MCT	A-B DELTA	
ELEV…FCDC 1				WINGTIP FENCE **0°** (+/- 0.1°) ..... ❑ SHARKLET >= **0.4°** ..... ❑

ELAC 2 ..... **ON**

G LEAK MEASUREMENT VALVES ..... **ON**

Y LEAK MEASUREMENT VALVES ..... **ON**

ENG 1, 2 FADEC GND PWR ..... **OFF**

❑

S78. FLIGHT CONTROL - NORMAL OPERATION

Ensure three hydraulic circuits available (B+Y electric hydraulic pumps ON)

ECAM PAGE ..... **SET TO F/CTL**

FLAPS **0**

F/CTL ON 3 AXIS ..... **OPERATE TO FULL STROKE**

- **AIL** / **ELEV** / **RUD** MOVE ACCORDINGLY ..... ❑

- SPOILERS **2** TO **5** EXTEND ACCORDINGLY ..... ❑

Note: ECAM Warning F/CTL ELAC PITCH FAULT may occur following large and sharp F/CTL inputs while the A/C is hydraulically powered by the ELEC Pumps only

S79. FLIGHT CONTROL - Y OPERATION ONLY

BLUE PUMP OVRD ..... **OFF**

PTU ..... **OFF**

- **G** & **B** INDICATIONS AMBER ..... ❑

- SPOILERS **1** / **3** / **5** AMBER & PANEL NUMBERS APPEAR ..... ❑

F/CTL ON 3 AXIS ..... **OPERATE TO FULL STROKE**

- **R ELEV** & **RUD** MOVE ACCORDINGLY ..... ❑

- SPOILERS **2** & **4** EXTEND ACCORDINGLY ..... ❑

- **L ELEV** INDICATION IS RANDOM FROM NEUTRAL TO FULL DOWN ..... ❑

PITCH TRIM WHEEL ..... **MOVE A FEW UNITS**

- PITCH TRIM MOVE ACCORDINGLY ..... ❑

BLUE PUMP OVRD ..... **ON**

- **B** INDICATIONS GREEN ..... ❑

- SPOILERS **3** W/O ANY NUMBER ..... ❑

- SPOILERS **1** / **5** REMAINS AMBER WITH THE PANEL NUMBERS ..... ❑

❑

S80. FLIGHT CONTROL - B OPERATION ONLY

YELLOW ELEC PUMP ..... **OFF**

- **Y** INDICATIONS AMBER ..... ❑
- SPOILERS **2** / **4** AMBER & PANEL NUMBERS APPEARED ..... ❑
- SPOILERS **1** / **5** REMAIN AMBER WITH THE PANEL NUMBERS ..... ❑

F/CTL ON 3 AXIS ..... **OPERATE TO FULL STROKE**

- **AIL** / **ELEV** / **RUD** MOVE ACCORDINGLY ..... ❑
- SPOILERS **3** EXTEND ACCORDINGLY ..... ❑

YELLOW ELEC PUMP ..... **ON**

- **Y** INDICATIONS GREEN ..... ❑
- SPOILERS **2** / **4** GREEN ..... ❑
- SPOILERS **1** / **5** REMAINED AMBER WITH THE PANEL NUMBERS ..... ❑

❑

S81. FLIGHT CONTROL - G OPERATION ONLY

BLUE PUMP OVRD ..... **OFF**

- **B** INDICATIONS AMBER ..... ❑
- SPOILERS **3** AMBER & PANEL NUMBERS APPEAR ..... ❑
- SPOILERS **1** / **5** REMAIN AMBER WITH THE PANEL NUMBERS ..... ❑

PTU ..... **AUTO**

- **G** INDICATIONS GREEN ..... ❑
- SPOILERS **1** / **5** GREEN W/O ANY NUMBER ..... ❑
- SPOILERS **3** REMAIN AMBER WITH THE PANEL NUMBERS ..... ❑

Y LEAK MEASUREMENT VALVES ..... **OFF**

- **Y** INDICATIONS AMBER ..... ❑
- SPOILERS **2** / **4** AMBER & PANEL NUMBERS APPEAR ..... ❑
- SPOILERS **3** REMAIN AMBER WITH THE PANEL NUMBERS ..... ❑

F/CTL ON 3 AXIS ..... **OPERATE TO FULL STROKE**

- **AIL** / **L ELEV** / **RUD** MOVE ACCORDINGLY ..... ❑
- SPOILERS **5** EXTEND ACCORDINGLY ..... ❑
- **R** ELEV INDICATION IS RANDOM FROM NEUTRAL TO FULL DOWN ..... ❑

PITCH TRIM WHEEL ..... **MOVE A FEW UNITS**

- PITCH TRIM MOVE ACCORDINGLY ..... ❑

Y LEAK MEASUREMENT VALVES ..... **NORMAL**

- **Y** INDICATIONS GREEN ..... ❑
- SPOILERS **2** / **4** GREEN W/O ANY NUMBER ..... ❑
- SPOILERS **3** REMAIN AMBER WITH THE PANEL NUMBERS ..... ❑

BLUE PUMP OVRD ..... **ON**

- **B** INDICATIONS GREEN ..... ❑
- SPOILERS **3** GREEN W/O ANY NUMBER ..... ❑

YELLOW ELEC PUMP ..... **OFF**

BLUE PUMP OVRD ..... **OFF**

❑

S82. AUTO PILOT TESTS

LAND TEST

CFDS LAND TEST ..... **PERFORM**

- LAND TEST OK ..... ❑

After the LAND TEST procedure is completed:

THROTTLE LEVERS ..... **IDLE**

ENG 1(2) FADEC GND PWR ..... **OFF**

F/CTL PANEL P/B ..... **ON**

FD 1 – 2 ..... **OFF**

AUTO PILOT BREAK OUT

G / B / Y HYD PRESS ..... **3000 PSI**

AP 1 / (2) ..... **ON**

- BOTH L/R SIDESTICKS & RUDDER PEDALS NEUTRALIZED ..... ❑

CAPT (F/O) ..... **FULL ROLL DEFLECTION**

- AP DISENGAGES ..... ❑
- ECAM WARNING ***AUTO FLT AP OFF*** APPEARS ..... ❑

AP 1 / (2) ..... **ON**

CAPT (F/O) ..... **FULL PITCH DEFLECTION**

- AP DISENGAGES ..... ❑
- ECAM WARNING ***AUTO FLT AP OFF*** APPEARS ..... ❑

AP 1 / (2) ..... **ON**

CAPT (F/O) ..... **FULL RUDDER PEDAL DEFLECTION**

- AP DISENGAGES ..... ❑
- ECAM WARNING ***AUTO FLT AP OFF*** APPEARS ..... ❑

REPEAT SEQUENCE WITH AP (2) FROM (F/O) SIDE ..... ❑

CAPT OR F/O SIDESTICK PRIORITY P/B ..... **PRESS**

- M/W & AURAL ALERT ARE CANCELLED ..... ❑
- ECAM WARNING ***AUTO FLT AP OFF*** REMAINS ..... ❑

AP 1 / (2) ..... **ON**

CAPT OR F/O SIDE STICK PRIORITY P/B ..... **PRESS TWICE**

ANY REMAINING AP WARNING ARE CANCELLED ..... ❑

❑

S83. SIDESTICK TAKE OVER AND LATCH LOGIC

G / B / Y HYD PRESS ..... **3000 PSI**

CAPT (F/O) SIDESTICK ..... **FULL DOWN**

- ELEV MOVE ACCORDINGLY ..... ❑

F/O (CAPT) SIDESTICK PRIORITY P/B ..... **PRESS & HOLD**

CHRONO ..... **START**

- F/O (CAPT) PRIORITY LIGHT ILLUMINATES GREEN ..... ❑
- CAPT (F/O) ARROW LIGHT ILLUMINATES RED ..... ❑
- ELEV NEUTRAL ..... ❑
- AUDIO MESSAGE: **"*PRIORITY RIGHT* (LEFT)"** ..... ❑

CAPT (F/O) SIDESTICK ..... **RELEASE**

- F/O (CAPT) PRIORITY LIGHT EXTINGUISHES ..... ❑

After 40 sec:

F/O (CAPT) SIDESTICK PRIORITY P/B ..... **RELEASE**

CHRONO ..... **STOP/RESET**

T.O CONFIG ..... **PRESS**

- ECAM WARNING ***CONFIG* L(R) SIDESTICK FAULT** *(BY TAKE OVER)* IS TRIGGERED ..... ❑
- CAPT (F/O) SIDESTICK FUNCTION IS INHIBITED ..... ❑

CAPT (F/O) SIDE STICK PRIORITY P/B ..... **PRESS AND RELEASE**

- CAPT (F/O) ARROW LIGHT EXTINGUISHES ..... ❑
- CAPT (F/O) SIDE STICK INPUTS ARE RECOVERED ..... ❑

T.O CONFIG ..... **PRESS**

- ECAM WARNING ***CONFIG* L(R) SIDESTICK FAULT** IS NOT TRIGGERED ..... ❑

REPEAT THE SEQUENCE FROM F/O SIDE ..... ❑

❑

DUAL INPUT VISUAL INDICATION OR VOICE (*)

CAPT & F/O SIDESTICK OUT OF NEUTRAL ..... **SET AND MAINTAIN**

- CAPT & F/O PRIORITY LIGHTS FLASH GREEN (*) ..... ❑
- "***DUAL INPUT***" AURAL MESSAGE IS AUDIBLE (*) ..... ❑

CAPT & F/O SIDESTICK ..... **RELEASE**

- CAPT & F/O PRIORITY LIGHTS EXTINGUISH ..... ❑
- "***DUAL INPUT***" AURAL MESSAGE IS NO MORE BROADCASTED ..... ❑

❑

S84. SPEED BRAKE

G / B / Y HYD PRESS ..... **3000 PSI**

SPEED BRAKE ..... **FULL**

- SPOILERS **1** TO **4** ARROWS GO UP GREEN ON BOTH L/R WINGS ..... ❑

SEC 1 ..... **OFF**

- SEC 1 BOX AMBER ..... ❑
- SPOILERS **3** & **4** GO X AMBER ..... ❑
- ECAM WARNING ***F/CTL SPEED BRAKE DISAGREE*** IS TRIGGERED ..... ❑

SEC 1 ..... **ON**

SEC 2 ..... **OFF**

- SEC 2 BOX AMBER ..... ❑
- SPOILER **5** GOES X AMBER ..... ❑

SEC 2 ..... **ON**

SEC 3 ..... **OFF**

- SEC 3 BOX AMBER ..... ❑
- SPOILER **1** AND **2** GO X AMBER ..... ❑

SEC 3 ..... **ON**

SPEED BRAKE ..... **RETRACT**

- SPOILERS ARE STOWED ..... ❑

❑

S85. RUDDER TRIM

G / B / Y HYD PRESS ..... **3000 PSI**

FAC 2 ..... **OFF**

RUD TRIM ..... **SET TO LH MAX DEFLECTION**

RUDT (PEDESTAL)		**20° +/- 1.0 FOR A320 / A321** **25° +/- 1.0 FOR A318 / A319 / NEO**	❑

RESET ..... **PRESS**

- RUDDER RETURNS TO NEUTRAL ..... ❑

RUDT (PEDESTAL)		**0° +/- 0.3**	❑

FAC 2 ..... **ON**

FAC 1 ..... **OFF**

RUD TRIM ..... **SET TO RH MAX DEFLECTION**

RUDT (PEDESTAL)		**20° +/- 1.0 FOR A320 / A321** **25° +/- 1.0 FOR A318 / A319 / NEO**	❑

RESET ..... **PRESS**

- RUDDER RETURNS TO NEUTRAL ..... ❑

RUDT (PEDESTAL)		**0° +/- 0.3**	❑

FAC 1 ..... **ON**

❑

S86. PITCH TRIM - AILERON - ELEVATOR

G / B / Y HYD PRESS ..... **3000 PSI**

ECAM PAGE ..... **SET TO F/CTL**

PITCH TRIM ..... **SET TO NOSE DOWN STOP**

PITCH TRIM (ECAM)		**between 3.4DN and 4.4DN**	❑

PITCH TRIM ..... **SET TO NOSE UP STOP**

PITCH TRIM (ECAM)		**between 12.8UP and 14.0UP**	❑

SEC 1 - 2 ..... **OFF**

ELAC 1 - 2 ..... **OFF**

ELAC 1 ..... **ON**

Within 10 sec

- PITCH TRIM WHEEL STARTS MOVING TOWARDS NEUTRAL POSITION ..... ❑

PITCH TRIM (ECAM)		**0° ± 0.3**	❑

AIL DEFLECTION L OR R ..... **PERFORM**

- AIL INDICATIONS MOVE ACCORDINGLY ..... ❑

ELEV DEFLECTION UP OR DOWN ..... **PERFORM**

- ELEV INDICATIONS MOVE ACCORDINGLY ..... ❑

ELAC 1 ..... **OFF**

PITCH TRIM ABOUT **2°** UP OR DOWN ..... **SET**

❑

ELAC 2 ..... **ON**

Within 10 sec

- PITCH TRIM WHEEL STARTS MOVING TOWARDS NEUTRAL POSITION ..... ❑

PITCH TRIM (ECAM)		**0° ± 0.3**	❑

AIL DEFLECTION L OR R ..... **PERFORM**

- AIL INDICATIONS MOVE ACCORDINGLY ..... ❑

ELEV DEFLECTION UP OR DOWN ..... **PERFORM**

- ELEV INDICATIONS MOVE ACCORDINGLY ..... ❑

ELAC 2 ..... **OFF**

PITCH TRIM ABOUT **2°** UP OR DOWN ..... **SET**

SEC 2 ..... **ON**

Within 10 sec

- PITCH TRIM WHEEL STARTS MOVING TOWARDS NEUTRAL POSITION ..... ❑

PITCH TRIM (ECAM)		**0° ± 0.3**	❑

ELEV DEFLECTION UP OR DOWN ..... **PERFORM**

- ELEV INDICATIONS MOVE ACCORDINGLY ..... ❑

SEC 2 ..... **OFF**

PITCH TRIM ABOUT **2°** UP OR DOWN ..... **SET**

SEC 1 ..... **ON**

Within 10 sec

- PITCH TRIM WHEEL STARTS MOVING TOWARDS NEUTRAL POSITION ..... ❑

PITCH TRIM (ECAM)		**0° ± 0.3**	❑

ELEV DEFLECTION UP OR DOWN ..... **PERFORM**

- ELEV INDICATIONS MOVE ACCORDINGLY ..... ❑

ELAC 1 - 2 ..... **ON**

SEC 2 ..... **ON**

❑

S87. T.O CONFIGURATION WARNINGS

NEO: ENSURE FAN COWLS ARE CLOSED BEFORE ANY FLAPS/SLATS OPERATION

G / B / Y HYD PRESS ..... **3000 PSI**

ECP RCL ..... **PRESS FOR 3 SECONDS**

ECAM PAGE ..... **CLR TO MEMO - DOOR**

PITCH TRIM ..... **0°**

FLAPS **0**

- T.O. CONFIG ..... **PRESS & HOLD**

- ***"SLATS (FLAPS) NOT IN T.O CONFIG"*** WARNING IS TRIGGERED ..... ❑

FLAPS ..... **SELECT 1, 2 & 3**

- T.O. CONFIG WARNING IS NOT TRIGGERED ..... ❑

FLAPS ..... **FULL**

- ***"SLATS (FLAPS) NOT IN T.O CONFIG"*** WARNING IS TRIGGERED ..... ❑

FLAPS **3**

- T.O. CONFIG WARNING IS NOT TRIGGERED ..... ❑

SPEED BRAKE ..... **DEPLOY**

- **"SPD BRK NOT RETRACTED"** WARNING IS TRIGGERED ..... ❑

SPEED BRAKE ..... **RETRACT**

- T.O. CONFIG WARNING IS NOT TRIGGERED ..... ❑

PITCH TRIM ..... **NOSE UP UNTIL T.O. WARNING**

- ***"PITCH TRIM NOT IN T.O RANGE"*** WARNING IS TRIGGERED ..... ❑

PITCH TRIM (ECAM)		**4.6UP +/- 0.2 FOR A318** **3.6UP +/- 0.2 FOR A319 CEO/CJ** **4.4UP +/- 0.2 FOR A319NEO** **2.6UP +/- 0.2 FOR A320 CEO** **3.9UP +/- 0.2 FOR A320 NEO/CJ** **4.6UP +/- 0.2 FOR A321 ALL**	❑

❑

PITCH TRIM SLOWLY NOSE DN ..... **NOSE DOWN UNTIL WARNING DISAPPEARS**

PITCH TRIM (ECAM)		**SAME RANGE AS ABOVE**	❑

PITCH TRIM ..... **NOSE DOWN UNTIL T.O. WARNING**

- ***"PITCH TRIM NOT IN T.O RANGE"*** WARNING IS TRIGGERED ..... ❑

PITCH TRIM (ECAM)		**2.1DN +/- 0.2 FOR A318** **3.1DN +/- 0.2 FOR A319 CEO** **1.7DN +/- 0.2 FOR A319 CJ/NEO** **2.6DN +/- 0.2 FOR A320 ALL** **3.6DN +/- 0.2 FOR A321 ALL**	❑

PITCH TRIM ..... **NOSE UP UNTIL WARNING DISAPPEARS**

PITCH TRIM (ECAM)		**SAME RANGE AS ABOVE**	❑

T.O. CONFIG ..... **RELEASE**

RUD TRIM ..... **MOVE L/H SIDE UP TO 3.7°**

T.O. CONFIG ..... **PRESS & HOLD**

- ***"RUD TRIM NOT IN T.O RANGE"*** WARNING IS TRIGGERED ..... ❑

RUD TRIM ..... **MOVE L/H SIDE DOWN TO 3.4°**

T.O. CONFIG ..... **PRESS & HOLD**

- T.O. CONFIG WARNING IS NOT TRIGGERED ..... ❑

❑

RUD TRIM ..... **MOVE R/H SIDE UP TO 3.7°**

T.O. CONFIG ..... **PRESS & HOLD**

- ***"RUD TRIM NOT IN T.O RANGE"*** WARNING IS TRIGGERED ..... ❑

RUD TRIM ..... **MOVE R/H SIDE DOWN TO 3.4°**

T.O. CONFIG ..... **PRESS & HOLD**

- T.O. CONFIG WARNING IS NOT TRIGGERED ..... ❑

FLAPS **0**

YELLOW ELEC PUMP ..... **OFF**

BLUE PUMP OVRD ..... **OFF**

❑

S88. WHEEL BRAKES

YELLOW ELEC PUMP ..... **ON**

PTU ..... **AUTO**

NLG STEERING PIN ..... **REMOVE**

ENSURE WHEEL CHOCKS ARE IN PLACE

PARKING BRAKE

PARKING BRK ..... **OFF THEN ON**

- L & R BRAKE PRESS INDICATES **2100** PSI ..... ❑
- DELTA BETWEEN L & R BRAKE PRESS INDICATION **≤ 300** PSI ..... ❑

PARKING BRK ..... **OFF**

- L & R BRAKE PRESS DROP TO 0 PSI (**+ 130/-0**) ..... ❑

PEDAL BRAKING

BRAKE PEDALS ..... **APPLY FULL STROKE THEN RELEASE**

- L & R BRAKE PRESS REMAIN AT 0 PSI (**+ 130/-0**) ..... ❑

PTU ..... **OFF**

BRAKE PEDALS ..... **APPLY FULL STROKE THEN RELEASE**

- L & R BRAKES PRESS INDICATIONS INCREASE ..... ❑
- NOMINAL BRAKE PRESS IS **2550** PSI ..... ❑
- DELTA BETWEEN L & R BRAKE PRESS INDICATION ≤ **300** PSI ..... ❑

PTU ..... **AUTO**

A/SKID & N/W STRG ..... **OFF**

BRAKE PEDALS ..... **APPLY FULL STROKE THEN RELEASE**

- L & R BRAKES PRESS INDICATIONS INCREASE ..... ❑
- NOMINAL BRAKE PRESS IS **2550** PSI (IF HYD ALTN BRK) ..... ❑
- NOMINAL BRAKE PRESS IS **1000** PSI (IF ELEC ALTN BRK) ..... ❑
- DELTA BETWEEN L & R BRAKE PRESS INDICATION ≤ **300** PSI ..... ❑

❑

YELLOW ELEC PUMP ..... **OFF**

A/SKID & N/W STRG ..... **ON**

EMERGENCY BRAKING

BRAKE PEDALS ..... **APPLY FULL STROKE THEN RELEASE**

HYD ALTERNATE BRAKING

- REPEAT THE MANOEUVRE UNTIL THE BRAKE PRESSURE IS ≤ **1500** PSI ..... ❑
- CHECK 7 BRAKE APPLICATIONS MINIMUM ARE POSSIBLE BEFORE **1500** PSI ..... ❑

ELEC ALTERNATE BRAKING

- BRAKES PRESSURE IS LIMITED TO **1000** PSI ..... ❑
- CHECK 7 BRAKE APPLICATIONS MINIMUM ARE POSSIBLE UP TO **1000** PSI ..... ❑

YELLOW ELEC PUMP ..... **ON**

- ACCU PRESS GOES INTO THE GREEN INDICATOR BAND ..... ❑

AUTOBRAKE

ECAM PAGE ..... **SET TO WHEEL**

AUTO/BRK ..... **LO**

- **LO ON** LIGHT ILLUMINATES ..... ❑
- **AUTO BRK LOW** IS DISPLAYED (AUTO BRK LO WITH EIS 1) ..... ❑

A/SKID & N/W STRG ..... **OFF**

- **ON** LIGHT EXTINGUISHES ..... ❑
- **AUTO BRK LOW** DISAPPEARS (AUTO BRK LO WITH EIS 1) ..... ❑
- **AUTO BRK** IS AMBER (EIS 2 & ELEC ALTN BRK & NOT BSCU L4.8 STD OR HIGHER) ..... ❑

A/SKID & N/W STRG ..... **ON**

❑

AUTO/BRK ..... **MED**

- **MED ON** LIGHT ILLUMINATES ..... ❑
- **AUTO BRK MED** IS DISPLAYED ..... ❑

AUTO/BRK ..... **MAX**

- **MED ON** LIGHT EXTINGUISHES ..... ❑
- **MAX ON** LIGHT ILLUMINATES ..... ❑
- **AUTO BRK MAX** IS DISPLAYED ..... ❑

PTU ..... **OFF**

When the GREEN hydraulic system pressure goes below the low pressure threshold:

- **MAX ON** LIGHT EXTINGUISHES ..... ❑
- **AUTO BRK MAX** DISAPPEARS ..... ❑

YELLOW ELEC PUMP ..... **OFF**

BLUE PUMP OVRD ..... **OFF**

PTU ..... **AUTO**

PARKING BRK ..... **ON**

RE-POSITION THE NOSE LANDING GEAR STEERING PIN IF REQUIRED.

❑

S89. TYRE PRESSURE INDICATING SYSTEM (*)

CFDS TPIS TEST ..... **PERFORM**

- TEST OK ..... ❑

CFDS TPIS REF PRESSURE ..... **SELECT**

RECORD:

M.G. PRESSURE (PSI)	N.G. PRESSURE (PSI)

- INDIVIDUAL TYRE PRESS MUST NOT BE LOWER THAN REF PRESS **- 11 %** ..... ❑
- DELTA PRESS BETWEEN 2 TYRES ON THE SAME AXLE MUST NOT EXCEED **15 %** ❑

*Note: With the old TPIS computer STD, press any **LS** key to stop the test sequence*

❑

S90. EMERGENCY GENERATOR TEST

CFDS GCU EMER TEST ..... **PERFORM**

- TEST OK ..... ❑

BLUE PUMP OVRD ..... **ON**

ECAM PAGE ..... **CLR TO MEMO - DOOR**

EMER GEN TEST ..... **PRESS AND HOLD**

- ECAM ELEC PAGE APPEARS ..... ❑
- EMER GEN STARTS OPERATING ..... ❑
- CSM/G CONNECTION WITHIN 8 SECONDS ..... ❑

RECORD EMER GEN PARAMETERS

	EMER GEN	
Voltage (V)		**115V ± 5**
Frequency (Hz)		**400Hz ± 5**

❑

EMER GEN TEST ..... **RELEASE**

- BLUE PUMP OVRD CHECK REVERSION TO NORMAL ..... ❑

S91. STATIC INVERTER TEST

EMER GEN TEST ..... **PRESS & HOLD**

BUS TIE ..... **OFF**

ECP / ELEC P/B ..... **PRESS**

RECORD STAT INV PARAMETERS

	STAT INV	
Voltage (V)		**115V ± 5**
Frequency (Hz)		**400Hz ± 5**

❑

BUS TIE ..... **AUTO**

EMER GEN TEST ..... **RELEASE**

❑

S92. RAT EXTENSION (SOL 2 VIA P/B RAT & EMER GEN MAN ON – EMER ELEC PWR PNL 21VU)

ECAM PAGE ..... **SET TO MEMO - DOOR**

RAT SAFETY DEVICE ..... **REMOVED**

"RAT & EMER GEN MAN ON" ..... **PRESS & RELEASE**

- RAT EXTENDS INTO THE DOWN LOCKED POSITION ..... ❑
- ECAM CAUTION ***HYD RAT FAULT*** APPEARS ..... ❑
- ECAM HYD PAGE APPEARS ..... ❑
- RAT SYMBOL IS FULL GREEN ..... ❑
- ECAM MEMO: "**RAT OUT"** APPEARS ..... ❑

RAT ..... **STOW**

RE-INSTALL RAT SAFETY DEVICE

❑

S93. PACK CONTROL

GMT.....

APU ..... **START**

ECAM PAGE ..... **SET TO BLEED**

APU BLEED ..... **ON**

PACK 1 & 2 ..... **ON**

- PACK 1 & 2 START OPERATING AND REGULATING ..... ❑

S94. CABIN TEMPERATURE CONTROL

ECAM PAGE ..... **SET TO COND**

CAB TEMP AFT/FWD ..... **SET TO COLD THEN HOT**

- TRIM AIR VALVES SLAVE PROPERLY ..... ❑

- HOT AIR VALVE MAY CLOSE WHEN ALL VALVES ARE COMMANDED TO COLD ..... ❑

CABIN TEMP SELECTORS ..... **AS REQUIRED**

S95. CARGO HEAT FWD/AFT (*)

ECAM PAGE ..... **SET TO COND**

CARGO(S) TEMP ..... **SET TO COLD THEN HOT**

- TRIM AIR VALVES SLAVE PROPERLY ..... ❑

- HOT AIR VALVE(S) MAY CLOSE WHEN THE CARGO TRIM AIR VALVE(S) ARE COMMANDED COLD ..... ❑

CARGO TEMP SELECTOR(S) ..... **AS REQUIRED**

❑

S96. DITCHING CONFIGURATION

AT LEAST ONE A/C ACCESS MUST BE OPENED TO AVOID CABIN PRESSURIZATION

RAM AIR ..... **ON**

- RAM AIR P/B: **ON** LIGHT ILLUMINATES ..... ❑

- RAM AIR VALVE AMBER IN LINE ..... ❑

DITCHING ..... **ON**

- DITCHING P/B: **ON** LIGHT ILLUMINATES ..... ❑

ECAM PAGE ..... **SET TO BLEED**

- RAM AIR AND PACK 1 & 2 VALVES ARE CLOSED ..... ❑

ECAM PAGE ..... **SET TO PRESS**

- INLET / OUTLET (EXTRACT VENT FOR EIS 1) AND OUTFLOW VALVES ARE CLOSED ..... ❑

FWD/AFT CARGO VENTILLATION (*)

ECAM PAGE ..... **SET TO COND**

- FWD ISOL VALVE IS CLOSED ..... ❑

RAM AIR ..... **NORMAL**

DITCHING ..... **NORMAL**

Note: Cancel any spurious ECAM VENT warning through C/B Y17 (AIR COND - AVNCS VENT MONG) reset after the procedure is completed

S97. FUEL TANK INERTING SYSTEM (*)

APU BLEED ..... **ON**

PACK 2 ..... **OFF**

CFDS - CSAS/IGGS - TEST W BLEED ..... **PERFORM**

- TEST OK ..... ❑

PACK 2 ..... **ON**

❑

S98. HYD FIRE SHUT OFF VALVES CLOSURE (CEO)

C/B **A1**&**A2** (ENG 1(2) HP FUEL SOV, LEADING TO *"FUEL ENG 1(2) LP VLV OPEN")* ... **PULL**

FUEL PUMPS ... **ON**

PTU ... **OFF**

PACK 1 & 2 ... **OFF**

ENG 1 DRY MOTORING ... **PERFORM**

(STARTER LIMIT: **2 MIN**)

ENG MODE ... **CRANK**

ENG 1(2) MAN START ... **ON**

WHEN AT THE MAX MOTORING N2:

IAE&PW: HOLD MANUALLY THE SAV IN OPEN POSITION WITH APPROPRIATE TOOL

F/CTL ... **OPERATE CONTINUOUSLY**

ENG 1 (2) FIRE ... **PUSH**

CHRONO ... **START**

ECAM PAGE ... **SET TO HYD**

- ASSOCIATED HYDRAULIC FSOV CLOSES ... ❑
- ASSOCIATED HYDRAULIC TANK LEVEL INCREASE ... ❑
- WITHIN 60 SEC: ASSOCIATED HYDRAULIC PRESSURE DROPS BELOW **700** PSI ... ❑

As soon as the hydraulic pump pressure has dropped:

F/CTL ... **STOP OPERATING**

HYD ENG 1 (2) PUMP ... **OFF**

WHEN HYD PRESSURE CLOSE TO ZERO

ENG 1 (2) FIRE ... **RESET**

IAE&PW: REMOVE TOOL FROM THE SAV

ENG MAN 1(2) START ... **OFF**

CHRONO ... **STOP/RESET**

REPEAT THE PROCEDURE FOR ENG (2) ... ❑

❑

ENG MODE ..... **NORM**

PTU ..... **AUTO**

HYD ENG 1 (2) PUMP ..... **ON**

FUEL PUMPS ..... **OFF**

PACK 1 & 2 ..... **ON**

C/B **A1**&**A2** ..... **PUSH**

S99. HYD FIRE SHUT OFF VALVES CLOSURE (NEO)

C/B A1&A2 (ENG 1(2) HP FUEL SOV, LEADING TO *"FUEL ENG 1(2) LP VLV OPEN")* ..... **PULL**

FUEL PUMPS ..... **ON**

PTU ..... **OFF**

PACK 1 & 2 ..... **OFF**

ENG 1 DRY MOTORING ..... **PERFORM**

(STARTER LIMITS: CFM LEAP = **5 MIN** / PW = **15 MIN**)

ENG MODE ..... **CRANK**

ENG 1(2) MAN START ..... **ON**

WHEN AT THE MAX MOTORING N2:

PW: WAIT UNTIL COOLING PHASE IS FULLY COMPLETED ("COOLING" DISAPPEARS)

CFM LEAP: WAIT 1MIN. MINIMUM AFTER SAV OPEN (TO ENSURE AUTOMATIC CRANKING PROCEDURE IS COMPLETED AND N2≥20%)

F/CTL ..... **OPERATE CONTINUOUSLY**

C/B C13 (C14) (HYD/FIRE VALVE/G(Y) ENG 1(2)) ..... **PULL**

CHRONO ..... **START**

ECAM PAGE ..... **SET TO HYD**

- ASSOCIATED HYDRAULIC FSOV CLOSES ..... ❑
- ASSOCIATED HYDRAULIC TANK LEVEL INCREASED ..... ❑
- WITHIN 60 SEC: ASSOCIATED HYDRAULIC PRESSURE DROPS BELOW **700** PSI ..... ❑

As soon as the hydraulic pump pressure has dropped:

F/CTL ..... **STOP OPERATING**

HYD ENG 1 (2) PUMP ..... **OFF**

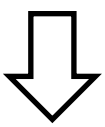
WHEN HYD PRESSURE CLOSE TO ZERO

C/B C13 (C14) ..... **PUSH**

ENG 1(2) MAN START ..... **OFF**

CHRONO ..... **STOP/RESET**

REPEAT THE PROCEDURE FOR ENG (2) ..... ❑



❑

ENG MODE ..... **NORM**

PTU ..... **AUTO**

HYD ENG 1 (2) PUMP ..... **ON**

FUEL PUMPS ..... **OFF**

PACK 1 & 2 ..... **ON**

C/B **A1**&**A2** ..... **PUSH**

Note:

-ECAM caution ENG1 (2) START VALVE FAULT might be triggered.

- ECAM caution will be cleared after EEC reset (ensure APU BLEED is OFF, then select ENG MASTER 1(2) ON then OFF) (PW)

S100. REMOTE APU FIRE SHUT DOWN

GMT.....

APU BLEED ..... **OFF**

EXT PWR ..... **ON**

AFTER AT LEAST 1 MIN (**HWL**) / 2 MIN (**APIC/PWC**) APU COOLING DOWN TIME:

APU SHUT OFF (EXT PWR PANEL) ..... **PRESS**

- APU SHUT DOWN SEQUENCE ACTIVATES ..... ❑
- APU MASTER SW: **FAULT** LIGHT ILLUMINATES ..... ❑
- ECAM CAUTION ***APU EMER SHUT DOWN*** APPEARS ..... ❑

APU MASTER SW ..... **OFF**

Note: ECAM caution APU EMER SHUT DOWN is latched till subsequent APU start

❑

S101. ENGINE FIRE DETECTION

C/B M25 & M26 (N28 & N29 FOR CJ) (LP VALVE MOT 2 ENG 1 - ENG 2) ..... **PULL**

ENG MASTER 1 (2) ..... **ON**

ECAM PAGE ..... **SET TO FUEL**

- LP FUEL VALVE OPENS ..... ❑

ENG 1 (2) FIRE TEST ..... **PRESS & HOLD**

- ECAM WARNING *ENG 1(2) FIRE* ..... ❑
- ECAM ENG PAGE APPEARS ..... ❑
- AGENT 1-2 “SQUIB/DISCH” & ENG 1(2) FIRE LIGHTS ILLUMINATES ..... ❑
- ENG MASTER 1(2): **FIRE** LIGHT ILLUMINATES ..... ❑

ENG 1(2) FIRE ..... **PUSH**

- CRC GOES OFF ..... ❑

ECAM PAGE ..... **SET TO FUEL**

- LP FUEL VALVE IS CLOSED ..... ❑

ECAM PAGE ..... **SET TO HYD**

- HYD FSOV IS CLOSED ..... ❑

ENG 1(2) FIRE TEST ..... **RELEASE**

- AGENT 1-2 **DISCH** LIGHTS EXTINGUISH ..... ❑

ENG 1(2) FIRE ..... **RESET**

- AGENT 1-2 **SQUIB** LIGHTS EXTINGUISH ..... ❑

ENG MASTER 1(2) ..... **OFF**

REPEAT THE PROCEDURE FOR ENG (2) ..... ❑

C/B M25 & M26 (N28 & N29 FOR CJ) ..... **PUSH**

❑

S102. FADEC & EIU SUPPLY • CFM (CEO)

ENG 1 (2) FADEC GND PWR ..... **ON**

ECAM PAGE ..... **SET TO ENG**

- ENG 1 (2) PARAMETERS VALID ..... ❑

ENG 1 (2) FIRE ..... **PUSH**

- UPPER ECAM: ENG 1 (2) INDICATIONS "XX" ..... ❑

- ECAM CAUTION ***ENG 1 (2) SHUT DOWN*** APPEARS ..... ❑

ENG 1 (2) FIRE ..... **RESET**

REPEAT THE PROCEDURE FOR ENG (2) ..... ❑

C/B **A4** (**ENG 1 FADEC A & EIU 1**) ..... **PULL**

- UPPER & LOWER ECAM: ENG 1 INDICATIONS REMAIN VALID ..... ❑

- ECAM CAUTION ***ENG1 FADEC A FAULT*** APPEARS ..... ❑

C/B **A4** ..... **PUSH**

C/B **A5** (**ENG 2 FADEC A & EIU 2**) ..... **PULL**

- UPPER ECAM: ENG 2 INDICATIONS REMAIN VALID ..... ❑

- LOWER ECAM: ENG 2 INDICATIONS REMAIN VALID (*EXCEPT NAC TEMP (*) & OIT*) ..... ❑

- ECAM CAUTION ***ENG 2 FADEC A FAULT*** APPEARS ..... ❑

C/B **A5** ..... **PUSH**

Note: depending of BMC STD, OIT might be indicated 0°C (green) instead of XX (amber)

C/B **R41** (**ENG 1 FADEC B & EIU 1**) ..... **PULL**

- UPPER & LOWER ECAM: ENG 1 INDICATIONS REMAIN VALID ..... ❑

- ECAM CAUTION ***ENG 1 FADEC B FAULT*** APPEARS ..... ❑

C/B **R41** ..... **PUSH**

C/B **Q40** (**ENG 2 FADEC B**) ..... **PULL**

- UPPER & LOWER ECAM: ENG 2 INDICATIONS REMAIN VALID ..... ❑

- ECAM CAUTION ***ENG 2 FADEC B FAULT*** APPEARS ..... ❑

C/B **Q40** ..... **PUSH**

ENG 1 (2) FADEC GND PWR ..... **OFF**

❑

S103. FADEC & EIU SUPPLY • IAE (CEO)

ENG 1 (2) FADEC GND PWR ..... **ON**

ECAM PAGE ..... **SET TO ENG**

- ENG 1 (2) PARAMETER VALID (*EXCEPT N1 & N2*) ..... ❑

ENG 1 (2) FIRE ..... **PUSH**

- UPPER ECAM: ENG 1 (2) INDICATIONS "XX" ..... ❑
- ECAM CAUTION ***ENG 1 (2) SHUT DOWN*** APPEARS ..... ❑

ENG 1 (2) FIRE ..... **RESET**

- F.F GOES VALID WITHIN **30** SEC (*DEPENDING ON FADEC STD*) ..... ❑

REPEAT THE PROCEDURE FOR ENG 2 ..... ❑

C/B **A4** (**ENG 1 FADEC A & EIU 1**) ..... **PULL**

- UPPER ECAM: ENG 1 INDICATIONS "XX" (*EXCEPT EGT*) ..... ❑
- ECAM CAUTION ***ENG 1 FADEC A FAULT*** APPEARS ..... ❑

C/B **A4** ..... **PUSH**

- F.F GOES VALID WITHIN **30** SEC (*DEPENDING ON FADEC STD*) ..... ❑

C/B **A5** (**ENG 2 FADEC A & EIU *2***) ..... **PULL**

- UPPER ECAM: ENG 2 INDICATIONS "XX" (*EXCEPT EGT*) ..... ❑
- LOWER ECAM: ENG 2 INDICATIONS REMAIN VALID (*EXCEPT NAC TEMP (*****) & OIT*) ..... ❑
- ECAM CAUTION ***ENG 2 FADEC A FAULT*** APPEARS ..... ❑

C/B **A5** ..... **PUSH**

- F.F GOES VALID WITHIN **30** SEC (*DEPENDING ON FADEC STD*) ..... ❑

Note: depending of BMC STD, OIT might be indicated 0°C (green) instead of XX (amber)

❑

C/B **R41** (**ENG 1 FADEC B & EIU 1**) ..... **PULL**

- UPPER & LOWER ECAM: ENG 1 INDICATIONS REMAIN VALID (*EXCEPT N1 & N2*) ..... ❑

- ECAM CAUTION ***ENG 1 FADEC B FAULT*** APPEARS ..... ❑

C/B **R41** ..... **PUSH**

C/B **Q40** (**ENG 2 FADEC B**) ..... **PULL**

- UPPER & LOWER ECAM: ENG 2 INDICATIONS REMAIN VALID (*EXCEPT N1 & N2*) ..... ❑

- ECAM CAUTION ***ENG 2 FADEC B FAULT*** APPEARS ..... ❑

C/B **Q40** ..... **PUSH**

ENG 1 (2) FADEC GND PWR ..... **OFF**

❑

S104. FADEC & EIU SUPPLY • PW6000 (CEO)

ENG 1 (2) FADEC GND PWR ..... **ON**

ECAM PAGE ..... **SET TO ENG**

- ENG 1 (2) INDICATIONS REFLECT THE ACTUAL DATA ..... ❑

ENG 1 (2) FIRE P/B ..... **PUSH**

- ENG 1 (2) INDICATIONS GO XX (*EXCEPT VIB AND F.USED)* ..... ❑
- E/W **ENG 1 (2) SHUT DOWN** IS TRIGGERED ..... ❑

ENG 1 (2) FIRE P/B ..... **RESET**

REPEAT THE PROCEDURE FOR ENG (2) ..... ❑

C/B **A4** (**ENG 1 FADEC A & EIU 1**) ..... **PULL**

- ENG 1 INDICATIONS REMAIN VALID (*EXCEPT OIL QTY*) ..... ❑
- E/W **ENG 1 TURB COOL FAULT**

  CASE COOL VALVE CLOSED IS TRIGGERED ..... ❑
- E/W **ENG 1 FADEC A FAULT** IS TRIGGERED ..... ❑

C/B **A4** (**ENG 1 FADEC A & EIU 1**) ..... **PUSH**

C/B **A5** (**ENG 2 FADEC A & EIU 2**) ..... **PULL**

- ENG 2 INDICATIONS REMAIN *VALID (EXCEPT OIL QTY, PRESS & TEMP)* ..... ❑
- E/W **ENG 2 EIU FAULT** IS TRIGGERED ..... ❑
- E/W **ENG 2 TURB COOL FAULT**

  CASE COOL VALVE CLOSED IS TRIGGERED ..... ❑
- E/W **ENG 2 FADEC A FAULT** IS TRIGGERED ..... ❑

Note:

- E/W ENG2 EIU FAULT might not be displayed due to the current flight phase, press RCL to recover it.

- A/THR, CAT 3, REVERSER 2 and ENG 2 START are indicated under INOP SYSTEMS

❑

C/B **A5** ..... **PUSH**

C/B **R41** (**ENG 1 FADEC B & EIU 1**) ..... **PULL**

- ENG 1 INDICATIONS REMAIN VALID ..... ❑
- E/W **ENG 1 FADEC B FAULT** IS TRIGGERED ..... ❑

C/B **R41** ..... **PUSH**

C/B **Q40** (**ENG 2 FADEC B**) ..... **PULL**

- ENG 2 INDICATIONS REMAIN VALID ..... ❑
- E/W **ENG 2 FADEC B FAULT** IS TRIGGERED ..... ❑

C/B **Q40** ..... **PUSH**

ENG 1 (2) FADEC GND PWR ..... **OFF**

Note: Eng (X) EIU appears under MAINTENANCE after approx.20 sec. with CB´s A4, R41 or Q40 open.

❑

S105. FADEC & EIU SUPPLY • PW1100G (NEO)

ENG 1 (2) FADEC GND PWR ..... **ON**

ECAM PAGE ..... **SET TO ENG**

- ENG 1 (2) PARAMETERS VALID ..... ❑

ENG 1 (2) FIRE ..... **PUSH**

- UPPER & LOWER ECAM: ENG 1 (2) INDICATIONS "XX" (*EXCEPT FU*) ..... ❑
- ECAM CAUTION ***ENG 1 (2) SHUT DOWN*** APPEARS ..... ❑

ENG 1 (2) FIRE ..... **RESET**

REPEAT THE PROCEDURE FOR ENG (2) ..... ❑

C/B **A4** (**ENG 1 FADEC A & EIU 1**) ..... **PULL**

- UPPER & LOWER ECAM: ENG 1 INDICATIONS REMAIN VALID (*EXCEPT N1/N2 VIB*) ..... ❑
- ECAM CAUTION: ***ENG 1 FADEC SYS FAULT*** APPEARS ..... ❑
- ECAM CAUTION: ***ENG 1 MINOR FAULT*** APPEARS ..... ❑

C/B **A4** ..... **PUSH**

C/B **A5** (**ENG 2 FADEC A & EIU 2**) ..... **PULL**

- UPPER & LOWER ECAM: ENG 2 INDICATIONS REMAIN VALID (*EXCEPT VIB*) ..... ❑
- ECAM CAUTION ***ENG 2 FADEC SYS FAULT*** APPEARS ..... ❑
- ECAM CAUTION ***ENG 2 MINOR FAULT*** APPEARS ..... ❑

C/B **A5** ..... **PUSH**

C/B **R41** (**R40** for A319/320NEO ACJ & A321NX) (**ENG 1 FADEC B & EIU 1**) ..... **PULL**

- UPPER & LOWER ECAM: ENG 1 INDICATIONS REMAIN VALID *(EXCEPT OIQ & VIB*) ..... ❑
- ECAM CAUTION ***ENG 1 FADEC SYS FAULT*** APPEARS ..... ❑
- ECAM CAUTION ***ENG 1 MINOR FAULT*** APPEARS ..... ❑
- ECAM CAUTION ***ENG 1 TURB COOL FAULT*** APPEARS ..... ❑

C/B **R41** (or **R40**) ..... **PUSH**

❑

C/B **Q40** (**R41** for A319/320NEO ACJ & A321NX) (**ENG 2 FADEC B & EIU2**) ..... **PULL**

- UPPER & LOWER ECAM: ENG 2 INDICATIONS REMAIN VALID *(EXCEPT OIQ & VIB)* ..... ❑
- ECAM CAUTION ***ENG 2 FADEC SYS FAULT*** APPEARS ..... ❑
- ECAM CAUTION ***ENG 2 MINOR FAULT*** APPEARS ..... ❑
- ECAM CAUTION ***ENG 2 TURB COOL FAULT*** APPEARS ..... ❑

C/B **Q40** (or **R41**) ..... **PUSH**

ENG 1 (2) FADEC GND PWR ..... **OFF**

Note: Eng X EIU FAULT might be triggered

❑

S106. FADEC & EIU SUPPLY • CFM LEAP (NEO)

ENG 1 (2) FADEC GND PWR ..... **ON**

ECAM PAGE ..... **SET TO ENG**

- ENG 1 (2) PARAMETERS VALID ..... ❑

ENG 1 (2) FIRE ..... **PUSH**

- UPPER & LOWER ECAM: ENG 1 (2) INDICATIONS "XX" *(EXCEPT FU)* ..... ❑

- ECAM CAUTION ***ENG 1 (2) SHUT DOWN*** APPEARS ..... ❑

ENG 1 (2) FIRE ..... **RESET**

REPEAT THE PROCEDURE FOR ENG (2) ..... ❑

C/B **A4** (**ENG 1 FADEC A & EIU 1**) ..... **PULL**

- UPPER & LOWER ECAM: ENG 1 INDICATIONS REMAIN VALID *(EXCEPT OIQ & VIB)* ..... ❑

- ECAM CAUTION ***ENG 1 FADEC SYS FAULT*** APPEARS ..... ❑

C/B **A4** ..... **PUSH**

C/B **A5** (**ENG 2 FADEC A & EIU 2**) ..... **PULL**

- UPPER & LOWER ECAM: ENG 2 INDICATIONS REMAIN VALID *(EXCEPT OIQ & VIB)* ..... ❑

- ECAM CAUTION ***ENG 2 FADEC SYS FAULT*** APPEARS ..... ❑

C/B **A5** ..... **PUSH**

C/B **R41** (R40 for A319/320NEO ACJ & A321NX) (**ENG 1 FADEC B & EIU1**) ..... **PULL**

- UPPER & LOWER ECAM: ENG 1 INDICATIONS REMAIN VALID ..... ❑

- ECAM CAUTION ***ENG 1 FADEC SYS FAULT*** APPEARS ..... ❑

- ECAM CAUTION ***ENG 1 MINOR FAULT*** APPEARS ..... ❑

C/B **R41** (or R40) ..... **PUSH**

C/B **Q40** (R41 for A319/320NEO ACJ & A321NX) (**ENG 2 FADEC B & EIU2**) ..... **PULL**

- UPPER & LOWER ECAM: ENG 2 INDICATIONS REMAIN VALID ..... ❑

- ECAM CAUTION ***ENG 2 FADEC SYS FAULT*** APPEARS ..... ❑

- ECAM CAUTION ***ENG 2 MINOR FAULT*** APPEARS ..... ❑

C/B **Q40** (or R41) ..... **PUSH**

ENG 1 (2) FADEC GND PWR ..... **OFF**

❑

S107. FADEC TEST

APU OFF OR APU BLEED OFF ..... **CHECK**

ENG 1 (2) FADEC GND PWR ..... **ON**

CFM

CFM56

CFDS FADEC 1A FADEC TEST (**NON MOTORING**) ..... **PERFORM**

LEAP

CFDS FADEC 1A FADEC SYSTEM TEST ..... **PERFORM**

- TEST OK ..... ❑

CFM 56-5B ONLY

On LRU IDENT page, obtain N1 TRIM and ENG type rating (CFM56-5B"x") and report value/type to page ENGINE POWER ASSURANCE CFM56-5B ..... ❑

REPEAT THE PROCEDURE FOR FADEC ..... 2A ❑ 1B ❑ 2B ❑

Note: CFM 56-5 B4 with FADEC 5BA: before performing FADEC B test, select ENG MASTER ON/OFF

IAE

CFDS FADEC 1A SELF TEST ..... ❑

- ASSOCIATED EGT AND F.F INDICATIONS GO XX ..... ❑
- ASSOCIATED EIU MAINTENANCE STATUS MESSAGE APPEARS ..... ❑
- ***OUTPUT DRIV. TEST*** PASSED, ***INPUT/INT. TEST*** PASSED, ***PRES. SENSOR(S)*** AGREE ..... ❑

REPEAT THE PROCEDURE FOR FADEC ..... 2A ❑ 1B ❑ 2B ❑

- F.F GOES VALID WITHIN 30 SEC (DEPENDING ON FADEC STD)

PW (6000 / 1100G)

CFDS FADEC SYSTEM TEST EEC 1 CHAN A SYSTEM TEST ..... **PERFORM**

- TEST OK ..... ❑

REPEAT THE PROCEDURE FOR ..... EEC 2 CHAN A ❑ EEC 1 CHAN A ❑ B ❑

❑

S108. ENGINE MONITORING

ENGINE INTERFACE UNIT

CFDS EIU 1 (2) GROUND SCANNING ❑

- NO FAILURE OR RT OK ❑

REPEAT THE PROCEDURE FOR EIU (2) ❑

ENGINE VIBRATION MONITORING

CFDS ENG VIBRATION TEST OR EVMU TEST **PERFORM**

- SELF-TEST OK ❑

ENG 1 (2) FADEC GND PWR **OFF**

S109. THROTTLE LEVERS POSITION MONITORING

APU OFF OR APU BLEED OFF **CHECK**

ENG MODE **IGN/START**

ENG 1 (2) THROTTLE OUT OF IDLE DETENT **SET**

ENG MASTER 1 (2) **ON**

- ECAM CAUTION ***ENG 1 (2) START FAULT***

  THR LEVER NOT AT IDLE APPEARS ❑

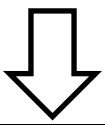
All CEO & NEO LEAP

- ECAM CAUTION ***ENG 1 (2) START FAULT***

  START VALVE NOT OPEN APPEARS ❑

NEO PW

- ECAM CAUTION ***ENG 1 (2) LO START AIR PRESS*** APPEARS ❑



❑

ENG 1 (2) THROTTLE ..... **IDLE**

- ECAM CAUTION RELATED TO ***THR LEVER NOT AT IDLE*** IS CLEARED ..... ❑

ENG MASTER 1 (2) ..... **OFF**

REPEAT THE PROCEDURE FOR ENG 2 ..... ❑

ENG MODE ..... **NORM**

ENG MASTER 1/2 ..... **ON-OFF**

- ECAM CAUTION RELATED TO ***START VALVE NOT OPEN*** IS CLEARED ..... ❑

❑

S110. FAP TEST (ENHANCED CIDS)

LIGHTS KEY ..... **PRESS**

- CABIN LIGHTING PAGE IS DISPLAYED ..... ❑
- PERFORM A RANDOM CHECK ..... ❑

DOORS/SLIDES KEY ..... **PRESS**

- DOORS/SLIDES PAGE IS DISPLAYED ..... ❑
- PASSENGER DOORS ACTUAL STATUS IS INDICATED ..... ❑
- CHECK SLIDE PRESSURE MESSAGE IS NOT INDICATED ..... ❑

TEMP KEY ..... **PRESS**

- CABIN TEMPERATURE PAGE IS DISPLAYED ..... ❑
- ALL CABIN ZONES ACTUAL TEMPERATURES ARE INDICATED ..... ❑

WATER/WASTE KEY ..... **PRESS**

- WATER/WASTE PAGE IS DISPLAYED ..... ❑
- ACTUAL WATER/WASTE TANK CONTENT IS INDICATED ..... ❑

SMOKE DETECT KEY ..... **PRESS**

- SMOKE DETECTION PAGE IS DISPLAYED ..... ❑
- NO ABNORMAL INDICATION IS DISPLAYED ..... ❑

SYSTEM INFO KEY ..... **PRESS**

- SYSTEM INFO PAGE IS DISPLAYED ..... ❑
- ALL SYSTEMS ARE AVAILABLE ..... ❑
- IF CAUTION LIGHT FLASHES, RELATED FAP PAGE MUST BE SELECTED TO STOP THE FLASHING CAUTION ..... ❑

Note: The FAP screen saver will automatically appear about 10 min after the last FAP selection

❑

S111. EVAC SYSTEM (*)

ON THE OVERHEAD PANEL

EVAC COMMAND ..... **ON**

- **ON** LIGHT ILLUMINATES ..... ❑
- EVAC LIGHT BLINKS ..... ❑
- BUZZER SOUNDS (EXCEPT WITH ENHANCED CIDS) ..... ❑

ON THE FAP STATION

- EVAC LIGHT BLINKS (EVAC RESET LIGHT WITH ENHANCED CIDS) ..... ❑
- EVAC BUZZER SOUNDS ..... ❑
- EVAC ALERT MESSAGE DISPLAYED ON THE AIP (ENHANCED CIDS) ..... ❑

EVAC RESET ..... **PRESS**

- EVAC BUZZER STOPS ..... ❑
- THE AIP EVACUATION ALERT MESSAGE DISAPPEARS (ENHANCED CIDS) ..... ❑

ON THE AFT AAP STATION

- EVAC/RESET LIGHT BLINKS (EVAC LIGHT WITH ENHANCED CIDS) ..... ❑
- EVAC BUZZER SOUNDS ..... ❑
- EVAC ALERT MESSAGE DISPLAYED ON THE AIP (ENHANCED CIDS) ..... ❑

EVAC RESET ..... **PRESS**

- EVAC BUZZER STOPS ..... ❑
- AIP EVAC ALERT MESSAGE DISAPPEARS (ENHANCED CIDS) ..... ❑

COMMAND ..... **OFF**

- **ON** AND EVAC LIGHTS EXTINGUISH ..... ❑

Any other possible EVAC COMMAND is part of the overall cabin check procedure

❑

S112. CABIN EMERGENCY LIGHTING

On either FAP or/and on the AAP station (*):

EMER ..... **ON**

- EXIT SIGNS ILLUMINATE ..... ❑
- MINIMUM CABIN LIGHTS ILLUMINATE ..... ❑
- FLOOR PATH MARKINGS ILLUMINATE ..... ❑

(EXCEPT FOR PHOTO LUMINESCENT SYSTEM)

EMER ..... **OFF**

- THE PRECEDING FUNCTIONS DISAPPEAR ..... ❑

❑

PART 1 GROUND CHECK

CHAPTER 2 – ENGINE RUN

E1. INTRODUCTION

The applications of the following PART 1 GROUND CHECK - CHAPTER 2 procedures assume that the A/C is in the engine run configuration.

Refer to AMM 71-00-00 Page block 501 for minimum fuel load required for the intended engine run.

The CTR TK must at least contain about 1 000 kg (2 200 lb) of fuel.

The applicable AIRCRAFT MAINTENANCE MANUAL published ground operating procedures and limitations govern the execution of all the engine related tests.

The nominated person “in command” for the engine run is responsible for the whole engine run. It is the responsibility of person in command to make all arrangements on the ground, which are deemed necessary for conducting the test safely and successfully. This task includes upon others installation of chocks, ensure obstacle clearance, monitoring weather conditions. A procedural and safety briefing with all direct involved personal and ground personal is prerequisite before test execution.

The CHAPTER 2 tests have been grouped in 3 parts which can be independently performed:

- Tests with engines running at **idle** which can be done at the gate (Tests **E2** to **E5** and **E10** to **E18**)
- **Low speed taxi** (Tests **E6** to **E9** and **E37**)
- Tests requiring power **above idle** and specific run-up area (Tests **E19** to **E38**)

Engine vibration limits: values indicated in this manual are extracted from the AMM.

When the actual level is:

- Below the published limit, no maintenance is required unless comfort is significantly deteriorated (noise, airframe vibrations),
- Above the published, refer to the AMM for further details.

When available, some recommendations are given on the level that may induce comfort issues. These values are given to invite the test crew to check that there is no comfort issue when these levels are exceeded.

E2. ENGINE 1 START – MANUAL

GMT.....

RAT SAFETY DEVICE REMOVED ..... **CHECK**

MCDU INIT PAGE ..... **INSERT CITY PAIR & NEW FLIGHT NUMBER**

APU ..... **START**

APU BLEED ..... **ON**

SET THE A/C SYSTEMS IN THE ALL WHITE LIGHTS OUT CONFIGURATION FOR ENGINES START EXCEPT:

FLAPS **1**

RCDR GND CTL ..... **ON**

ENG MODE ..... **IGN/START**

ENG 1 MAN START ..... **ON**

Note: for IAE engines: Wait 30 seconds minimum between start valve open and ENG M/L to ON

Note: for PW engines: Wait automatic cranking procedure sequence completed ("cooling" disappears) AND N2>18% minimum before ENG M/L to ON

Note: for CFM LEAP ENGINES: wait 1 MIN. minimum after Start Valve open (to ensure automatic cranking procedure is completed and N2>20%) before ENG M/L to ON

A318 - A319 - A320 (WITHOUT CTR XFR VALVES)

ECAM PAGE ..... **SET TO FUEL**

- L & R CTR TANK FUEL PUMPS RUN ..... ❑

ECAM PAGE ..... **SET TO MEMO - ENG**

ALL A/C

When N2 is at the max motoring %:

ENG MASTER 1 ..... **ON**

- IGN **AB** IS INDICATED ..... ❑

- RCDR GND CTL **ON** LIGHT EXTINGUISHES ..... ❑

After the ENG 1 start valve closure:

ENG 1 MAN START ..... **OFF**

❑

E3. AIRSTAIRS 1 (*)

C/B **T10** AND **T11** (STAIRS CTRL NORM & STBY) ..... **PUSH**

- AIRSTAIRS OPERATION IS INHIBITED ..... ❑

E4. ENGINE 2 START – MANUAL

GMT.....

ENG 2 MAN START ..... **ON**

Note: for IAE engines: Wait 30 seconds minimum between start valve opening and ENG M/L to ON

Note: for PW engines: Wait automatic cranking procedure sequence completed ("cooling" disappears) AND N2>18% minimum before ENG M/L to ON

Note: for CFM LEAP ENGINES: wait 1 MIN. minimum after start Valve opening (to ensure automatic cranking procedure is completed and N2>20%) before ENG M/L to ON

When N2 is at the max motoring %:

ENG MASTER 2 ..... **ON**

- IGN **AB** IS INDICATED ..... ❑

After the ENG 2 start valve closure:

CHRONO ..... **START**

ENG 2 MAN START ..... **OFF**

ECAM PAGE ..... **SET TO BLEED**

After about 30 sec (CEO) / 1 mn (NEO) elapsed time:

- PACK 1 - 2 FCV OPEN ..... ❑

ENG MODE ..... **NORM**

A318 - A319 - A320 (except CTR XFR VALVES INSTALLED)

ECAM PAGE ..... **SET TO FUEL**

After about 120 sec elapsed time:

- BOTH CTR TANK FUEL PUMPS ARE COMMANDED TO STOP ..... ❑

ALL A/C

ECAM PAGE ..... **SET TO MEMO – WHEEL**

CHRONO ..... **STOP/RESET**

LATEST VALID AFTER ENGINE START PROCEDURE ..... **PERFORM**

❑

E5. A/C GENERAL

If the next tests are performed on a dedicated engine run area requiring aircraft taxi, the LOW SPEED TAXI tests described in paragraphs E6 to E9 can be performed at this stage, with the exception of ADIRS ATTI-TUDE MODE test (paragraph E40).

E6. LOW SPEED TAXI

TAXI THE A/C WITH A TAXI SPEED WITHOUT EXCEEDING 30KT

E7. YAW DAMPENING

FAC 1 ..... **OFF**

ECAM PAGE ..... **SET TO F/CTL**

- RUDDER DEFLECTS OPPOSITE TO THE TURN ..... ❑

FAC 1 ..... **ON**

- RUDDER DEFLECTS OPPOSITE TO THE TURN ..... ❑

E8. A/C STEERING MODES

GENTLE STEERING INPUT ..... **N/W STEERING CTL & RUDDER PEDALS**

- A/C MUST NOT DEVIATE EXCESSIVELY FROM THE COMMANDED TRAJECTORY WHEN ALL STEERING INPUTS ARE NULLED ..... ❑
- CHECK RUDDER PEDAL DISCONNECTION FUNCTION ..... ❑

REPEAT TEST FROM CM2 SIDE ..... ❑

❑

E9. A/C BRAKING MODES

CM1 SYMMETRICAL BRAKE INPUT ..... **APPLY**

- A/C BRAKING IS ACHIEVED WITHOUT CHATTER ..... ❑
- WHEEL BRAKE PRESSURE INDICATIONS REMAIN AT ZERO (BRIEF PRESSURE INDICATION MIGHT OCCUR AT THE BRAKING INPUT) ..... ❑

REPEAT TEST FROM CM2 STATION ..... ❑

When on a straight taxi track and with a taxi speed not exceeding 10KT:

A/SKID & N/W STRG ..... **OFF**

HYD ALTERNATE BRAKING (*)

SYMMETRICAL BRAKE INPUT ..... **APPLY AT 1000 PSI MAXIMUM**

- A/C BRAKING IS ACHIEVED WITHOUT CHATTER ..... ❑

ELEC ALTERNATE BRAKING (*)

SYMMETRICAL BRAKE INPUT ..... **APPLY FULL STROKE**

- A/C BRAKING IS ACHIEVED WITHOUT CHATTER ..... ❑
- THE L/R BRAKE PRESSURE IS AUTOMATICALLY LIMITED TO **1000** PSI ..... ❑

REPEAT TEST FROM CM2 STATION ..... ❑

A/SKID & N/W STRG ..... **ON**

Resume the normal A/C steering control and resume the normal A/C taxi speed

❑

E10. HYDRAULIC POWER GENERATION

ECAM PAGE ..... **SET TO HYD**

	GREEN	BLUE	YELLOW	
HYD PRESS (PSI)				**3000** PSI ± 200

❑

E11. RAT EXTENSION (SOL 1 VIA P/B RAT MAN ON - HYD PNL 40VU)

ECAM PAGE ..... **SET TO MEMO - WHEEL**

RAT MAN ON ..... **PRESS AND RELEASE**

- RAT EXTENDED INTO THE DOWN LOCKED POSITION ..... ❑
- ECAM CAUTION ***HYD RAT FAULT*** APPEARS ..... ❑
- ECAM HYD PAGE APPEARS ..... ❑
- RAT SYMBOL FULL GREEN ..... ❑
- ECAM MEMO: **"RAT OUT"** APPEARS ..... ❑

E12. FLIGHT CONTROL

ECAM PAGE ..... **SET TO MEMO - WHEEL**

OPERATE ALL THE FLIGHT CONTROLS ON THE 3 AXIS TO FULL STROKE

- ECAM F/CTL PAGE APPEARS AUTOMATICALLY ..... ❑
- ALL FLIGHT CONTROL INDICATION MOVE INTO THEIR RESPECTIVE FULL DEFLECTION BOX ..... ❑

E13. AUTO PILOT INHIBIT

CHECK THAT NEITHER **AP1** NOR **AP2** CAN BE ENGAGED ..... ❑

❑

E14. ELECTRIC POWER GENERATION

EXT POWER ..... **OFF**

(EXTERNAL POWER CABLE DISCONNECTED FROM AIRCRAFT)

APU GEN ..... **OFF**

GEN 1 ..... **OFF**

	GEN 2	
LOAD (%)		
VOLTAGE (V)		**115**V ± 5
FREQUENCY (HZ)		**400**HZ ± 5

❑

GEN 1 ..... **ON**

GEN 2 ..... **OFF**

	GEN 1	
LOAD (%)		
VOLTAGE (V)		**115**V ± 5
FREQUENCY (HZ)		**400**HZ ± 5

❑

GEN 2 ..... **ON**

APU GEN ..... **ON**

RISE INDICATION (*)

- IDG 1/2 RISE TEMPERATURE DOES NOT EXCEED **22**°C ..... ❑

Note: - APU speed fluctuation (or shut down) might be noticed during the electrical transfer due to the APU generator configuration (APU GEN switched OFF). To avoid such behavior select batteries OFF then ON prior to the electrical switching (Batteries connected to DC BAT BUS)

- Load fluctuations might be noticed due to WHC ground power logic and system processing data sampling rate.

❑

E15. IDG DISCONNECTION

GMT.....

IDG 1 (2) DISC ..... **PRESS** (*ABOUT 2 SEC*)

CHRONO ..... **START**

ECAM PAGE ..... **SET TO ELEC**

- GEN 1 (2**) FAULT** LIGHT ILLUMINATED W/O "**GEN FAULT**" ON ECAM ..... ❑
- *"DISC" IS* DISPLAYED ..... ❑
- ECAM CAUTION ***ELEC IDG 1 (2) DISCONNECTED*** DISPLAYED (FWC H2F5 & HIGHER) ❑

Between 10 & 15 sec. after IDG disconnection:

GEN 1 (2) ..... **OFF**

- GEN 1 (2) **OFF** IS DISPLAYED ..... ❑
- *"DISC"* REMAINS DISPLAYED ..... ❑

Note: A quick selection of GEN OFF after IDG disconnection may cause:

- ECAM warning IDG OIL LO PRESS and LO PR message on ECAM system page

- Disappearance of the IDG message after IDG reconnection

Wait at least 1 minute before to proceed with IDG2

CHRONO ..... **STOP/RESET**

REPEAT THE PROCEDURE FOR IDG (2) ..... ❑

ENG 1 - 2 ..... **SHUT DOWN**

E16. A/C GENERAL

For PW & CFM LEAP ENGINES
FLAPS/SLATS MUST BE FULLY RETRACTED BEFORE OPENING ENGINE FAN COWLS

When engines are stopped, coordinate with the maintenance personnel the IDG reset (when N2 lowered to below 10%), and the wheels chocks installation in front of all wheels on both MLG (when parked in Run up area).

GEN 1 - 2 ..... **ON**

ECAM PAGE ..... **SET TO MEMO – DOOR**

STOW RAT AND INSTALL SAFETY DEVICE ..... ❑

❑

E17. RESIDUAL CABIN PRESSURE WARNING (*)

GMT.....

DURING BELOW MENTIONED TEST

ALL PAX DOOR HANDLES SHOULD NOT BE OPERATED TO AVOID ANY INADVERTENT DOOR OPENING

TEST TO BE PERFORMED WITHIN **5** MINUTES AFTER ENGINES SHUT DOWN

C/B X23 (**RPCU**) ..... **PULL**

RAM AIR ..... **OFF**

PASSENGER DOOR SLIDES ..... **DISARMED**

RCL ..... **PRESS**

APU BLEED ..... **ON**

MODE SEL ..... **MAN**

MAN V/S CTL ..... **DN (CAB V/S 500 FT/MN)**

When the Δ P is above 0.1psi (does not exceed 0.5 psi):

- ECAM ***CAB PR EXCES RESIDUAL PR*** APPEARS (IF FWC H2F3 AND HIGHER) ..... ❑
- ALL DOOR **CABIN PRESSURE** RED WARNING LIGHTS ARE BLINKING ..... ❑

After the check is completed:

MAN V/S CTL ..... **UP (CAB V/S 500 FT/MN)**

When the Δ P is at 0psi

MODE SEL ..... **AUTO**

C/B X23 ..... **PUSH**

❑

E18. AUTOMATIC ENGINE START

GMT.....

MCDU INIT PAGE ..... **INSERT CITY PAIR AND NEW FLIGHT NUMBER**

ENG 1 (2) START ..... ❑

LATEST VALID AFTER ENGINE START PROCEDURE IS PERFORMED ..... ❑

E19. ENGINE GROUND TEST GENERAL

The engine ground test schedule provided hereafter is governed by the application of the Engine manufacturer published SOI procedures and run up tables, directed by the AMM check guide requirements.

Consult applicable AMM aircraft preparation for engine power run:

Chocks must be installed on all front wheels of both Main Landing Gear.

The A/C must be parked on a clean concrete surface, securely chocked and nose into the wind to limit the engine air intake distortion

The AIDS printer is whenever available used in substitution to the provided record space and the obtained AIDS prints are added to the contents of this ISATFM as a consequence.

Note: For IAE engines the FADEC at standard SCN17 or higher, "N1 Keep Out Zone" between 60% N1and 75% N1 implemented

APU ..... **AVAIL**

APU BLEED ..... **ON**

RAM AIR ..... **ON**

GEN 1 - 2 ..... **OFF**

FLAPS **0**

A/SKID & N/W STRG ..... **ON**

A/C WITH HYD ALTERNATE BRAKING SYSTEM (*)

CM1 & CM2 BRAKE PEDALS ..... **PRESS & HOLD**

PARKING BRK ..... **OFF**

A/C WITH ELEC ALTERNATE BRAKING SYSTEM (*)

CM1 & CM2 BRAKE PEDALS ..... **PRESS & HOLD**

PARKING BRK ..... **ON**

❑

E20. ENGINE POWER ASSURANCE CHECK (CFM 56-5A)

Ensure that engines have been running for at least **3 min** at idle (*Including taxi time if applicable*)

Record here below engine type rating, S/N, and N1 Trim number with corresponded correction values.

Record the **50 %** power assurance target N1 and tolerance (Ref: ***AMM 71-00-00 PB 501***)

A/C Type ..... **OAT** .....**°C** **QNH** .....**hPa** **Press ALT** .....**ft**

ENG S/N	ENG Rating
ENG 1:	A.....
ENG 2:	

A	50 % Power Ass. setting
N1 Target..... %	
EGT..... °C	
N2..... %	

B	Engine rating correction (Report associated EGT& N2 from AMM table)	
EGT (°C)	..... °C	
N2 (%)	..... %	

C	EGT & N2 MAX corrected (C=A + B)
EGT MAX..... °C	
N2 MAX..... %	

- Set the engine throttles to obtain the target N1..... (+/- **0.5** %)
- Stabilize engines for **4** min
- Record or print (AIDS report **11**) the engine parameters

		D								
	N1	EGT	N2	F/F	OIL QTY	OIL PRESS	OIL TEMP	VIB N1 < 4	VIB N2 < 4.3	NAC TEMP (If displayed)
ENG 1										0 ⌒ 300
ENG 2										0 ⌒ 300

- Apply following corrections to EGT, N2 and FF (if necessary)

E	N1 target deviation (Report associated correction from AMM)
For each 0.1 percent that N1 actual deviates from the target N1 Adjust the data as follows: N2…. %, EGT…..°C If actual N1 is less than target, adjustments are positive (+) If N1 is greater, adjustments are negative (-).	

	E	N1 Target Deviation (See table E)		F	EGT & N2 corrected (F=D + E)		EGT & N2 MARGIN (C - F) Result should be positive	
	Δ EGT	Δ N2		EGT	N2		EGT	N2
ENG 1								
ENG 2								

Note: For altitude above sea level, EGT values should be corrected in accordance with AMM EGT trim adjustment table.

THRUST ..... **IDLE**

CM1 & CM2 BRAKE PEDALS ..... **RELEASE**

PARKING BRK ..... **ON**

❑

E21. ENGINE POWER ASSURANCE CHECK (CFM 56-5B / LEAP)

Ensure that engines have been running for at least **3 min** at idle (Including taxi time if applicable)

Record here below engine type rating, S/N, and N1 Trim number with corresponded correction values.

Record the **72.5 %** power assurance target N1 and tolerance (Ref: ***AMM 71-00-00 PB 501***)

A/C Type ..... **OAT** .....**°C** **QNH** .....**hPa** **Press ALT** .....**ft**

ENG S/N	N1 Trim	ENG Rating
ENG 1:		A/B:.....
ENG 2:		

A	72.5 % Power Ass. setting
N1 Target.....	%
EGT.....	°C
N2.....	%

B	Engine rating correction (Report associated EGT& N2 from AMM table)	
EGT (°C)	.....	°C
N2 (%)	.....	%

C	EGT & N2 MAX corrected (C=A + B)
EGT MAX.....	°C
N2 MAX.....	%

- Set the engine throttles to obtain the target N1 (+/- **0.5** %)
- Stabilize engines for **4 min**
- Record or print (AIDS **report 11**) the actual engine parameters

	N1	D EGT	D N2	F/F	OIL QTY	OIL PRESS	OIL TEMP	VIB N1 < 4	VIB N2 < 4.3	NAC TEMP (If displayed)
ENG 1										0 ⌒ 300
ENG 2										0 ⌒ 300

- Apply following corrections to EGT and N2 (if necessary)

E	N1 target deviation (Report associated correction from AMM)
For each 0.1 percent that N1 actual deviates from the target N1 Adjust the data as follows: N2 ..... % EGT .....° C If actual N1 is less than target, adjustments are positive (+) If N1 is greater, adjustments are negative (-).	

	E N1 Target Deviation (See table E)		F N1 Modifier adjustment Report associated EGT& N2 correction from AMM table		G EGT & N2 corrected (G=D + E + F)		EGT & N2 MARGIN (C - G) Result should be positive	
	Δ EGT	Δ N2	EGT	N2	EGT	N2	EGT	N2
ENG 1								
ENG 2								

Note: For altitude above sea level, EGT values should be corrected in accordance with AMM EGT trim adjustment table.

THRUST ..... **IDLE**

CM1 & CM2 BRAKE PEDALS ..... **RELEASE**

PARKING BRK ..... **ON**

❑

E22. ENGINE POWER ASSURANCE CHECK (IAE V2500)

Ensure that engines have been running for at least 5 min at idle (Including taxi time if applicable)
Record here below the Engine S/N and 1.250 EPR power assurance tolerances. (Ref: ***AMM 71-00-00 PB 501***)

A/C Type ..... **OAT** .....**°C** **QNH** .....**hPa** **Press ALT** .....**ft**

- Adjust engine throttles to obtain the target 1.250 EPR.
- Stabilize engines for **2 min**
- Record or print (AIDS **report 11**) engine parameters.

ENG	ENG 1 S/N: ……	ENG 2 S/N: ……	Tolerances	New Engines*	Revenues * Service Eng.
EPR					
EGT				+/-25 °C	-25/+54 °C
N1				+/-1.5 %	+/-2.0 %
N2				- 1.0/+1.4 %	- 3.0/+1.4 %
F/F				+/-150 kg/h (+/-330 lb/h)	- 150/+330 kg/h (-330/+730 lb/h)
OIL QTY					
OIL PRESS					
OIL TEMP					
VIB N1			**< 5**		
VIB N2			**< 5**		
NAC TEMP (If displayed)	**0** 	 **400**			

Apply following corrections (if necessary):
- Increase the limits by the following increments for every 0.005 EPR above the 1.25 target:
  EGT....1.5 ° C N1.... 0.5 % N2.... 0.2 % FF.... 38 kg/h (84 lb/h)
- For altitude above 1000ft, FF values should be reduced (see 1.25 EPR altitude correction table)

Note: - For IAE engines the FADEC at standard SCN17 or higher), "N1 Keep Out Zone" between 60% N1and 75% N1 implemented
- Fan trim balance is recommended any time N1 peak vibration exceeds 2 CU. Waiting until N1 peak vibration approaches or exceeds the 5.0 unit limit may require multiple fan trim balances to bring N1 vibration down to an acceptable limit.
*- * Corrections are valid for all EEC software standard except SCN 10A*

THRUST ..... **IDLE**
CM1 & CM2 BRAKE PEDALS ..... **RELEASE**
PARKING BRK ..... **ON**

❑

E23. ENGINE POWER ASSURANCE CHECK (PW6000)

Ensure that engines have been running for at least 5 min at idle (Including taxi time if applicable)

Record here below the applicable power assurance target and the applicable tolerances extracted from the current AMM power assurance tables. (Ref: ***AMM 71-00-00 PB 501***)

A/C Type ..... **OAT** .....**°C** **QNH** .....**hPa** **Press ALT** .....**ft**

- Set the engine throttles to obtain the target N1..... (+/- 0.5 %)
- Stabilize engines for **2 min**
- Record or print (AIDS **report 11**) the engine parameters

		A						
	ENG	ENG 1 S/N: …….	ENG 2 S/N: …….	Corrected Actual values (table B)		Tolerances (Table C)		
				ENG 1	ENG 2	MIN	MAX	
	N1							
B	N2							
B	EGT							C
B	F/F							C
	OIL QTY							
	OIL PRESS							
	OIL TEMP							
	VIB N1						< 3.3	
	VIB N2						< 3.3	

- Apply following corrections to EGT, N2 and FF (if necessary)

B	**N1 target deviation and TCC** (Report associated correction from AMM)
	For each 1 percent that N1 actual deviates from the target N1 Adjust the data as follows: N2…. %, EGT…..°C, FF….kg/h(lb/h) If actual N1 is less than target, adjustments are negative (-) If N1 is greater, adjustments are positive (+). If TCC is ON subtract data as follow : EGT…..°C, FF….kg/h(lb/h)

C	**Target Altitude correction** (Report associated correction from AMM)
	For each 1000ft increase of altitude above sea level, adjust the data as follows: EGT …….°C, FF ……..kg/h (lb/h)

THRUST ..... **IDLE**

CM1 & CM2 BRAKE PEDALS ..... **RELEASE**

PARKING BRK ..... **ON**

❑

E24. ENGINE POWER ASSURANCE CHECK (PW1100G)

Ensure that engines have been running for at least 5 min at idle (Including taxi time if applicable)

Record here below the applicable power assurance target and the applicable tolerances extracted from the current AMM power assurance tables. (Ref: ***AMM 71-00-00 PB 501***)

A/C Type ..... **OAT** .....**°C** **QNH** .....**hPa** **Press ALT** .....**ft**

- Set the engine throttles to obtain the target N1..... (+/- 0.5 %)
- Stabilize engines for **2 min**
- Record or print (AIDS **report 11**) the engine parameters

		A						
	ENG	ENG 1 S/N: …….	ENG 2 S/N: …….	Corrected Actual values (table B)		Tolerances (Table C)		
				ENG 1	ENG 2	MIN	MAX	
	N1							
B	N2							
B	EGT							C
B	F/F							C
	OIL QTY							
	OIL PRESS							
	OIL TEMP							
	VIB N1						< 5	
	VIB N2						< 5	

- Apply following corrections to EGT, N2 and FF (if necessary)

B	**N1 target deviation** (Report associated correction from AMM)
	For each 1 percent that N1 actual deviates from the target N1 Adjust the data as follows: N2…. %, EGT…..°C, FF….kg/h(lb/h) If actual N1 is less than target, adjustments are negative (-) If N1 is greater, adjustments are positive (+).

C	**Target Altitude correction** (Report associated correction from AMM)
	For each 1000ft increase of altitude above sea level, adjust the data as follows: EGT …….°C, FF ……..kg/h (lb/h)

THRUST ..... **IDLE**

CM1 & CM2 BRAKE PEDALS ..... **RELEASE**

PARKING BRK ..... **ON**

❑

E25. MIN IDLE (CFM56-5A AND 5B)

OAT .....**°C** **QNH** .....**hPa** **PRESS ALT** .....**ft**

- Allow about **3 min** for thermal stabilization
- Record or print (AIDS **report 11**) the engine parameters

ENG	ENG 1 S/N: ……	ENG 2 S/N: ……	Tolerances	
			MIN	MAX
N1				
EGT				
N2			58.3 %	
F/F				
OIL QTY				
OIL PRESS				
OIL TEMP				
VIB N1				< 4
VIB N2				< 4.3
NAC TEMP (*)	0 			

E26. MIN IDLE (IAE V2500)

Record here below the engine S/N and MIN Idle tolerances.

OAT .....**°C** **QNH** .....**hPa** **PRESS ALT** .....**ft**

- Allow about **5 min** for thermal stabilization
- Record or print (AIDS **Report 11**) the engine parameters

ENG	ENG 1 S/N: ……	ENG 2 S/N: ……	Tolerances	New Engines *	Revenues * Service Eng.
EPR			**A321** 1.009 +/- 0.007 **A319 & A320** 1.004 +/- 0.007		
EGT				- 35/+25 °C -35/+35 Select	- 25/+90 °C
N1				+/-2.0 %	- 2.0/+3.8 %
N2				- 2.0/+2.2 %	- 2.0/+2.2 %
F/F				+/-50 kg/h (+/-110 lb/h)	- 50/+125 kg/h (-110/+275 lb/h)
OIL QTY					
OIL PRESS					
OIL TEMP					
VIB N1			**< 5**		
VIB N2			**< 5**		
NAC TEMP (*)	**0**	**400**			

Note: - For altitude above 1000ft, corrections should be applied (see MIN Idle altitude correction table)
*a. * Corrections are valid for all EEC software standard except SCN 10A*

E27. MIN IDLE (PW6000)

OAT .....**°C** **QNH** .....**hPa** **PRESS ALT** .....**ft**

- Allow about **3 min** for thermal stabilization
- Record or print (AIDS **report 11**) the engine parameters

ENG	ENG 1 S/N : ……	ENG 2 S/N : ……	Tolerances	
			MIN	MAX
N1				
EGT				
N2			58 %	
F/F				
OIL QTY				
OIL PRESS				
OIL TEMP				
VIB N1				
VIB N2				

E28. MIN IDLE (PW1100G)

OAT .....**°C** **QNH** .....**hPa** **PRESS ALT** .....**ft**

- Allow about **5 min** for thermal stabilization
- Record or print (AIDS report 11) the engine parameters

ENG	ENG 1 S/N : ……	ENG 2 S/N : ……	Tolerances	
			MIN	MAX
N1				
EGT				
N2				
F/F				
OIL QTY				
OIL PRESS				
OIL TEMP				
VIB N1				< 5
VIB N2				< 5

E29. MIN IDLE (CFM LEAP)

OAT .....**°C** **QNH** .....**hPa** **PRESS ALT** .....**ft**

- Allow about **5 min** for thermal stabilization
- Record or print (AIDS report 11) the engine parameters

ENG	ENG 1 S/N : ……	ENG 2 S/N : ……	Tolerances	
			MIN	MAX
N1				
EGT				
N2				
F/F				
OIL QTY				
OIL PRESS				
OIL TEMP				
VIB N1				< 4
VIB N2				< 4.3

E30. N1 MODE (IAE V2500)

N1 MODE 1 - 2 ..... **ON**

- **ON** LIGHT ILLUMINATED ON P/B ..... ❑
- UPPER ECAM: EPR 1 / 2 INDICATION GO “XX” AMBER ..... ❑
- UPPER ECAM: N1 MODE IDENT BOX & APPLICABLE N1 LIMIT APPEAR ..... ❑

Note: The engine parameters may change between N1 MODE ON and OFF according the environmental data and the N1 MODE schedule.

N1 MODE 1 - 2 ..... **OFF**

- **ON** LIGHT EXTINGUISHES ON P/B ..... ❑
- UPPER ECAM: EPR 1 / 2 INDICATION REVERT TO NORMAL ..... ❑
- UPPER ECAM: N1 MODE IDENT BOX & APPLICABLE N1 LIMIT DISAPPEARS ..... ❑

❑

E31. A/C SYSTEMS RESTORE

GMT.....

GEN 1 – 2 ..... **ON**

RAM AIR ..... **OFF**

APU BLEED ..... **OFF**

APU ..... **SHUT DOWN**

E32. THRUST AUGMENTATION – BUMP (*)

FLX TO TEMP ..... **CLEAR**

ECAM PAGE ..... **SET TO ENG**

CFM

ENG 1 (2) BUMP P/B ..... **PRESS**

- **B** INDICATION APPEARS ON THE E/WD ADJACENT TO N1 INDICATION ..... ❑

ENG 1 (2) BUMP P/B ..... **PRESS**

- ALL PRECEDING INDICATIONS GO BACK TO NORMAL ..... ❑

REPEAT THE PROCEDURE FOR ENG (2) ..... ❑

IAE

ENG 1 (2) BUMP P/B ..... **PRESS**

- **B** INDICATION APPEARS ON THE E/WD ADJACENT TO N1 INDICATION ..... ❑

ENG 1 (2) BUMP P/B ..... **PRESS**

- ALL THE PRECEDING INDICATIONS GO BACK TO NORMAL ..... ❑

REPEAT THE PROCEDURE FOR ENG (2) ..... ❑

❑

E33. REVERSE

ENG 1 - 2 REVERSERS ..... **DEPLOY**
CHRONO ..... **START**

- ENGINES POWER GOES TO IDLE REV ..... ❑
- REV GREEN IS INDICATED ON EWD ..... ❑

RECORD THE REVERSERS DEPLOY TIME FROM COMMAND TO REVERSE AVAILABLE:

	ENG 1	ENG 2	
ELAPSED TIME			**CFM 56 ≤ 3 SEC** **IAE / PW6000/PW1100G ≤ 5 SEC** **CFM LEAP ≤ 7 SEC**

❑

CHRONO ..... **STOP/RESET**

ENG 1 - 2 REVERSERS ..... **STOW**
CHRONO ..... **START**

- ENGINE POWER GO BACK TO MIN IDLE ..... ❑
- REV INDICATION IS CLEARED WHEN FULLY STOWED ..... ❑

RECORD THE REVERSERS STOW TIME FROM COMMAND TO REVERSE DISABLED

	ENG 1	ENG 2	
ELAPSED TIME			**CFM 56 ≤ 3 SEC** **IAE / PW6000/PW1100G ≤ 5 SEC** **CFM LEAP ≤ 7 SEC**

❑

CHRONO ..... **STOP/RESET**

❑

E34. PNEUMATIC POWER GENERATION (CEO)

SELECT ECAM BLEED PAGE, AND CHECK FOR NO ABNORMAL INDICATIONS

Note: *- IAE - make sure the engines are stabilized for 2 min at idle before proceeding to the next test*
- Stabilized running within the N1 speed band of 61% to 74% should be avoided.
- FADEC standard SCN 17 and higher contains a "N1 Keep Out Zone" 61%-75% N1

APU BLEED ..... **OFF**
RAM AIR ..... **ON**
A/SKID & N/W STRG ..... **ON**

A/C WITH HYD ALTERNATE BRAKING SYSTEM (*)

CM1 & CM2 BRAKE PEDALS ..... **PRESS & HOLD**
PARKING BRK ..... **OFF**

A/C WITH ELEC ALTERNATE BRAKING SYSTEM (*)

CM1 & CM2 BRAKE PEDALS ..... **PRESS & HOLD**
PARKING BRK ..... **ON**

THRUST ..... **#29%** N1 (CFM) OR # **35%** N1 (IAE V2500 – PW6000)

When the bleed system parameters are stabilized, record:

	BLEED 1	BLEED 2		
PRESS (PSI)			**36** PSI ± 4	❑
TEMP (°C)			**200** °C +10/-30	❑

Note: Pressure fluctuations are acceptable as long as the pressure remains within the 32-40 psi band and no surge noise is noticeable

INCREASE ENGINE THRUST TILL REACHING HPV-PRV CHANGE OVER
- BLEED PRESS SHALL REMAIN AT **36** PSI ± 4 ..... ❑

THRUST ..... **SET TO #75 %** N1 (***IAE***) **#65 %** N1 (***CFM - PW***)

When the bleed system parameters are stabilized, record:

	BLEED 1	BLEED 2		
PRESS (PSI)			**45** PSI ± 5	❑
TEMP (°C)			**200** °C +10/-40	❑

Note: Pressure fluctuations are acceptable as long as the pressure remains within the 40-50 psi band and no surge noise is noticeable: For A/C pre-MOD P9136, BLEED PRESS should be 44psi ± 4

THRUST ..... **IDLE**
CM1 & CM2 BRAKE PEDALS ..... **RELEASE**

A/C WITH HYD ALTERNATE BRAKING SYSTEM (*)

PARKING BRK ..... **ON**

❑

E35. PNEUMATIC POWER GENERATION (NEO)

SELECT ECAM BLEED PAGE, AND CHECK FOR NO ABNORMAL INDICATIONS

APU BLEED ..... **OFF**
RAM AIR ..... **ON**
A/SKID & N/W STRG ..... **ON**
CM1 & CM2 BRAKE PEDALS ..... **PRESS & HOLD**
PARKING BRK ..... **ON**
THRUST ..... **IDLE**

When the bleed system parameters are stabilized, record:

	BLEED 1	BLEED 2	
TEMP (°C)			**200** °C ±25

❑

INCREASE ENGINE THRUST TILL REACHING HPV-PRV CHANGE OVER
- CHANGE OVER HAPPENS AT ABOUT N1> 60% ..... ❑

THRUST ..... **SET TO #65 %** N1

When the bleed system parameters are stabilized, record:

	BLEED 1	BLEED 2	
PRESS (PSI)			**42** PSI ± 5
TEMP (°C)			**200** °C ± 25

❑
❑

THRUST ..... **IDLE**
CM1 & CM2 BRAKE PEDALS ..... **RELEASE**

❑

E36. BLEED SYSTEM REVERSE FLOW PROTECTION

ECAM PAGE ..... **SET TO BLEED**

APU BLEED ..... **OFF**

RAM AIR ..... **ON**

X BLEED ..... **OPEN**

A321 CEO

PACK 1 OR 2 ..... **OFF**

ENG 1 THRUST ..... **INCREASE SLOWLY**

- PRV 2 MUST CLOSE ..... ❑

- HPV 2 MAY CLOSE ..... ❑

ENG 1 THRUST ..... **IDLE**

ENG 2 THRUST ..... **INCREASE SLOWLY**

- PRV 1 MUST CLOSE ..... ❑

- HPV 1 MAY CLOSE ..... ❑

ENG 2 THRUST ..... **IDLE**

X BLEED ..... **AUTO**

A321 CEO

PACK 1 OR 2 ..... **ON**

RAM AIR ..... **OFF**

Note:

- PRV re-opening may require x bleed valve closure and/or engine thrust increase on the tested engine.

- A321 only: to avoid a higher power setting in order to close the valves, pack 1or 2 can be selected off prior to start the test.

❑

E37. WING ANTI ICE

APU BLEED ..... **OFF**
ECAM PAGE ..... **SET TO BLEED**

ANTI ICE WING ..... **ON**
- **FAULT** LIGHT ILLUMINATES DURING VALVES TRANSIT TO OPEN ..... ❑
- ENGINE POWER INCREASES TO MINIMUM BLEED IDLE ..... ❑
- ECAM MEMO: **"*WING A. ICE*"** APPEARS ..... ❑
- UPPER ECAM: ***"PACKS / WAI"*** APPEARS (NEO A/C) ..... ❑

After about 30 sec:
- **FAULT** LIGHT ILLUMINATES DURING VALVES TRANSIT TO CLOSE

ANTI ICE WING ..... **OFF**
- ENGINE POWER DECREASES TO MIN IDLE ..... ❑
- ECAM MEMO: ***"WING A. ICE"*** DISAPPEARS ..... ❑
- UPPER ECAM: ***"WAI"*** DISAPPEARS & ***"PACKS"*** REMAIN DISPLAYED (NEO A/C) ..... ❑

Note: on IAE: N2 may increase by as much as 10 % when compared to the min idle N2

E38. ENGINE ANTI ICE

ANTI ICE ENG 1 (2) ..... **ON**
- **FAULT** LIGHT ILLUMINATES DURING VALVE TRANSIT TO OPEN (CEO A/C) ..... ❑
- ENGINE POWER 1&2 INCREASE TO MINIMUM BLEED IDLE ..... ❑
- ECAM MEMO: ***"ENG A. ICE"*** APPEARS ..... ❑
- UPPER ECAM: ***"PACKS / NAI"*** APPEARS (NEO A/C) ..... ❑

ANTI ICE ENG 1 (2) ..... **OFF**
- **FAULT** LIGHT ILLUMINATES DURING VALVE TRANSIT TO CLOSE (CEO A/C) ..... ❑
- ENGINE 1&2 POWER DECREASES TO MIN IDLE ..... ❑
- ECAM MEMO: ***"ENG A. ICE"*** DISAPPEARS ..... ❑
- UPPER ECAM: ***"NAI"*** DISAPPEARS & ***"PACKS"*** REMAIN DISPLAYED (NEO A/C) ..... ❑

REPEAT THE PROCEDURE FOR ENG (2) ..... ❑

Note: on IAE: N2 may increase by as much as 10 % when compared to the MIN IDLE N2

❑

E39. EMERGENCY BUS OVERRIDE

ENSURE APU IS SHUT-DOWN ❑

GEN 1 LINE **OFF**

- GEN 2 SUPPLIES AC BUS 1 ❑
- ALL FUEL PUMPS OPERATE ❑

Note: E/W ELEC GEN 1 FAULT is triggered after approximately 6 sec.

BUS TIE **OFF**

A/C WITHOUT AC ESS BUS AUTOMATIC SWITCHING (*)

- AC ESS FEED **FAULT** LIGHT IS ILLUMINATED ❑

A/C WITH AC ESS BUS AUTOMATIC SWITCHING (*)

- AC ESS FEED **FAULT** LIGHT COMES ON FOR FEW SEC THEN GOES OFF ❑
- AC BUS 2 SUPPLIES AC ESS BUS ❑

C/B **V 24** (**ESS NTWK AUTO ALTN**) **PULL**

- AC ESS BUS IS NOT SUPPLIED ❑
- AC ESS FEED **FAULT** LIGHT IS ILLUMINATED ❑

AC ESS FEED **ALTN**

- AC ESS FEED **FAULT** LIGHT IS EXTINGUISHED & **ALTN** LIGHT IS ILLUMINATED ❑
- AC BUS 2 SUPPLIES AC ESS BUS ❑

AC ESS FEED **NORMAL**

BUS TIE **AUTO**

GEN 1 LINE **ON**

C/B **V 24** (**ESS NTWK AUTO ALTN**) **PUSH**

DISREGARD ANY REMAINING SYSTEM FAULT AT THIS STAGE

- **TR1** IS LOST AND CANNOT BE RESET AFTER ENGINE RUN THROUGH CFDS
- **ESS TR** IS LATCHED IN THE POST FAILURE CONFIGURATION TILL THE ELECTRICAL A/C SUPPLY IS MOMENTARILY INTERRUPTED

Note:

- ISIS (*) is momentarily lost when « bus tie » is off. Isis is recovered after the power up test sequence as soon as AC ESS FEED « ALTN » is selected

- With EIS 2: during this test engine warning display (EWD) can be displayed on lower ECAM instead of upper ECAM and will be recovered by switching OFF then ON the upper ECAM.

❑

E40. BATTERIES SUPPLY ONLY

GMT .....

GEN 1 - 2 ..... **OFF**

FOLLOWING EQUIPMENTS REMAIN OPERATIVE:

- RMP 1 ..... ❑
- ACP1 ..... ❑
- VHF1 – INT ..... ❑
- LH LOUDSPEAKER ..... ❑
- PA FROM ACP AND HANDSET ..... ❑
- CLOCK ..... ❑
- FCU ..... ❑
- ISIS (*) ..... ❑
- STBY INSTRUMENTS - WITHOUT VIBRATOR - (EXCEPT IF ISIS INSTALLED) ..... ❑
- BRAKE PRESS INDICATIONS ..... ❑
- LH MAIN PANEL FLOOD LIGHTS ..... ❑
- RH MAIN PANEL FLOOD LIGHTS ARE DIMMED FOR BRAKE INDICATOR LIGHTING (*) ..... ❑
- PARK BRK ..... ❑
- LANDING GEAR DOWN LOCKED INDICATION ..... ❑
- RH DOME LIGHT ..... ❑
- STBY COMPASS LIGHT ..... ❑

Note: - F/CTL are driven by ELAC1, ELAC2 and SEC1 but ELAC2 FAULT/OFF P/B is INOP
- SFCC1 remains operative but drives FLAPS only without indication
- Nose wheel well horn (sounds for AVNCS Lo Flow)

EMER EXIT LT ..... **ARM**

BAT 1 - 2 ..... **OFF**

- ALL THE EMERGENCY EXIT LIGHTS ARE ILLUMINATED ..... ❑
- PA CONTINUES VIA THE HANDSET (IF CDIS ON HOT BUS (*)) ..... ❑

BAT 1-2 ..... **ON**

SIGNS (3) ..... **OFF**

❑

ENG 1 (2) FIRE TEST ..... **PRESS AND HOLD**

- AGENT 1 SQUIB*/DISCH AND HALF PART OF FIRE LIGHTS ILLUMINATE ..... ❑
- ENG 1 (2) MASTER FIRE LIGHT ILLUMINATES ..... ❑
- ECAM WARNINGS DO NOT APPEAR ..... ❑

ENG 1 (2) FIRE TEST ..... **RELEASE**

Note: If MOD "single ENG taxi with APU OFF" installed, AGENT 1 SQUIB light does not illuminate under BAT SPLY ONLY condition

REPEAT THE FIRE TEST FOR ENG (2) ..... ❑

APU FIRE TEST ..... **PRESS AND HOLD**

- AGENT SQUIB/DISCH AND HALF PART OF FIRE LIGHTS ILLUMINATE ..... ❑
- ECAM WARNINGS DO NOT APPEAR ..... ❑

APU FIRE TEST ..... **RELEASE**

APU ..... **START**

WHEN THE APU GEN IS ON-LINE:

GEN 1 - 2 ..... **ON**

REVERT TO NORMAL A/C SYSTEM OPERATION

Note:

- Normal electrical configuration can be recovered by an AC ESS FEED P/B reset (ALTN/Normal), or if not efficient, by a C/B "AC ESS/BUS ON /BUS1" (AC12) reset. DC BUS TIE message will be generated if electrical network is supplied through the 3 TRU's (TR1/TR2/ ESS TR) for more than 2 min.

- The PITCH TRIM may start to operate in either direction (Expect automatic pitch trim reset upon electrical power restore)

- V2500 engines may exhibit a latched EPR FAULT till after engines shut down condition within about 5 sec after the 115 VAC power interrupt whenever the OAT is at/or below 8°C(47°F)

- With V2527M-A5 (A319-133) or FADEC software SCN20A/Z and above, ENG 1(2) SENSOR FAULT may be experienced.

- PW 6000 Engine: ENG 1(2) SENSOR FAULT may be experienced

- Disregard PFR messages, which are linked to this test (abnormal configuration)

❑

E41. DEGRADED HYDRAULIC POWER

PTU EFFICIENCY

ECAM PAGE ..... **SET TO HYD**

ENG 1 PUMP ..... **OFF**

- G HYD PRESS: BETWEEN **2200** PSI & **3150** PSI
- PTU STARTS OPERATION (break out pressure) BETWEEN **2200** PSI & **2850** PSI ..... ❑
- PTU STOPS OPERATION (stall pressure) BETWEEN **2800** PSI AND **3150** PSI ..... ❑
- PTU OPERATES INTERMITTENTLY BETWEEN LIMITS W/O CONTINUOUS RUNNING ..... ❑

RUDDER L & R "FULL DEFLECTION" ..... **OPERATE 5 TIMES**

- G HYD PRESS REMAINS BETWEEN **2200** PSI AND **3150** PSI ❑

ENG 1 PUMP ..... **ON**

- PTU STOPS OPERATION ..... ❑

ENG 1 PUMP ..... **OFF**

PTU ..... **OFF**

- G PRESS DROPS, AMBER AT **1450** PSI ..... ❑
- G PRESS DECREASES TO ≤ **200** PSI ..... ❑

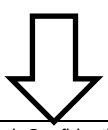
FLAPS ..... **OPERATE (ONE DETENT)**

- SLATS/FLAPS OPERATION SLOW, ASSOCIATED MESSAGE ON ECAM STS ..... ❑
- INDICATION GO FROM BLUE TO GREEN WHEN POSITION REACHED ..... ❑

ENG 1 PUMP ..... **ON**

PTU ..... **AUTO**

Note: With "PTU extended inhibition logic" installed (NEO only), PTU is automatically inhibited on ground with both engines running. It will be automatically re-engaged in case of G or Y system low press (when on ground both engines running). Therefore, expect ECAM caution HYD G ENG1 PUMP LO PR and HYD G SYS LO PR to be shortly displayed on ECAM and G pressure drops down below 1450PSI just before PTU engagement. Once PTU has been reactivated, PTU remains in "hot standby" until engine S/D (PTU extended inhibition logic).



❑

ENG 2 PUMP ..... **OFF**

- Y PRESS: INDICATED BETWEEN **2200** PSI & **3150** PSI ..... ❑
- PTU STARTS OPERATION (break out pressure) BETWEEN **2200** PSI AND **2850** PSI ..... ❑
- PTU STOPS OPERATION (stall pressure) BETWEEN **2800** PSI AND **3150** PSI ..... ❑
- PTU OPERATES INTERMITTENTLY BETWEEN LIMITS W/O CONTINUOUS RUNNING ..... ❑

RUDDER L & R “FULL DEFLECTION” ..... **OPERATE 5 TIMES**

- Y HYD PRESSURE REMAINS BETWEEN **2200** PSI AND **3150** PSI ..... ❑

ENG 2 PUMP ..... **ON**

- PTU STOPS OPERATION ..... ❑

ENG 2 PUMP ..... **OFF**

PTU ..... **OFF**

- Y PRESS DROPS, AMBER AT **1450** PSI ..... ❑
- Y PRESS DECREASES TO ≤ **200** PSI ..... ❑

FLAPS ..... **OPERATE (ONE DETENT)**

- FLAPS OPERATION SLOW, ASSOCIATED MESSAGE ON ECAM STS ..... ❑
- SLATS OPERATE AT NORMAL SPEED ..... ❑
- INDICATION GO FROM BLUE TO GREEN WHEN POSITION REACHED ..... ❑

ENG 2 PUMP ..... **ON**

PTU ..... **AUTO**

❑

E42. ENGINE FIRE SHUT DOWN

GMT .....

C/B **A8** AND **A9** (**LP VALVE MOT 1 ENG 1 - ENG 2**) ..... **PULL**
HYD ENG 1 (2) PUMP ..... **OFF**
PTU ..... **OFF**
ENG 1 (2) FIRE ..... **PUSH**
CHRONO ..... **START**
- ASSOCIATED AGENT 1 - 2 **SQUIB** LIGHTS ILLUMINATED ..... ❑
- ECAM FUEL PAGE: ASSOCIATED LP FUEL VALVE CLOSED ..... ❑
- ECAM HYD PAGE: ASSOCIATED HYDRAULIC FSOV CLOSED ..... ❑
- ECAM ELEC PAGE: ASSOCIATED GEN DEACTIVATED ..... ❑
- ECAM BLEED PAGE: ASSOCIATED PACK VALVE / PRV / HPV CLOSED ..... ❑

WHEN ENG 1 (2) PARAMETERS DECREASE
CHRONO ..... **STOP**
ENG MASTER 1 (2) ..... **OFF**
ENG 1 (2) FIRE ..... **RESET**
HYD ENG 1 (2) PUMP ..... **ON**

	ENG 1	ENG 2	
ELAPSED TIME			**CFM < 80 SEC** **IAE&PW6000 < 110 SEC** **PW 1100G < 96 SEC** **CFM LEAP < 60 SEC**

❑

Note: for CFMI, the elapsed time is function of fuel return valve position (see aids label 7C 1 (2)27510(01), Bit 25: 0=closed / 1=open). With FRV open (engine warm), et is approx. 45sec

CHRONO ..... **RESET**

REPEAT THE PROCEDURE FOR ENG (2) ..... ❑

❑

AFTER COMPLETION:

PTU ..... **ON**
C/B **A8** & **A9** ..... **PUSH**
GEN 1 & 2 ..... **OFF THEN ON**

Note: with IAE engine fitted with Woodward governor FMU, "ENG 1(2) OVSPD PROT FAULT" warning may occur. This warning is latched. To clear it, wait about 5 min until the FADEC power comes off. Enter city pair and new flight Number (MCDU INIT page). Perform a 5 min idle run. Switch off the affected gen and

Shutdown the engine - refer to PRO-ABN-70

With PW engine, ECAM caution ENG1(2) OIL CHIP DETECTED might be displayed during previous test

ECAM caution ENG1(2) FUEL VALVE FAULT might be triggered after engine fire handle shut down. This warning will be cleared at next engine Idle run.

E43. AUTOMATIC ENGINE START

GMT .....

MCDU INIT PAGE ..... **INSERT CITY PAIR & NEW FLIGHT NBR**

AUTOMATIC ENGINE 1(2) START PROCEDURE ..... **PERFORM**

Note: Due to the abnormal engine shut down (Engine fire procedure), spurious message (retransmission) might be recorded on next PFR.

E44. ADIRS - ATTITUDE MODE

WHEELS CHOCKS ..... **REMOVE**

IR 1 - 2 - 3 ROTARY MODE SELECTOR ..... **ATT**

With CDU INSTALLED (*)

Depending on the CDU keyboard installed, an "**H**" may be written on the "**5**" key:

IF "**H**" IS WRITTEN ON THE "**5**" KEY:

H KEY ..... **PRESS**

A/C HEADING ..... **ENTER**

IF "**H**" IS NOT WRITTEN ON THE "**5**" KEY:

A/C HEADING ..... **ENTER**

With MSU INSTALLED (*)

- INSERT THE HEADING VIA THE MCDU DATA /IRS MONITOR KEY ..... ❑

ALL

- ADIRS 1 - 2 - 3 ATT OUTPUTS GO VALID ..... ❑

- ADIRS 1 - 2 AND 3 INDICATE PROPERLY THE A/C HEADING ..... ❑

ATT HDG SWITCHING ..... **CAPT 3, F/O 3, NORM**

Note:

- With BSCU STD L4.1 or higher installed, E/W AUTO BRK FAULT is not displayed when the A/C starts moving.

- Expect AUTO FLT YAW DAMPER SYS when the 3 IRS are switched to ATT mode (if FAC B 621 and higher or FAC C AA02 and higher is installed)

- If ROPS installed, Expect SURV ROW/ROP LOST when the 3 IRS are switched to ATT mode

❑

E45. GATE ARRIVAL

APPLY THE CURRENT GATE ARRIVAL PROCEDURE

ENG 1 & 2 ..... **SHUT DOWN**

E46. APU FIRE SHUT DOWN

GMT .....

APU BLEED ..... **OFF**

EXT PWR ..... **ON**

After at least 1 min (HNL) / 2 min (APIC/PWC) APU cooling time:

APU FIRE ..... **PUSH**

- AGENT “SQUIB” LIGHT ILLUMINATES ..... ❑
- APU MASTER SW: **FAULT** LIGHT ILLUMINATES ..... ❑
- ECAM CAUTION ***APU EMER SHUT DOWN*** APPEARS ..... ❑

APU MASTER SW ..... **OFF**

APU FIRE ..... **RESET**

❑

E47. ADIRS ON BATTERY GROUND WARNING

BAT 1 & 2 ..... **OFF**

EXT PWR ..... **OFF**

- **ON BAT** LIGHT ILLUMINATES ..... ❑

After about 15 sec:

- EXTERNAL HORN SOUNDS ..... ❑

- EXT PWR PANEL ADIRU & AVNCS VENT LIGHT ILLUMINATES ..... ❑

C/B P9 (**HORN SPLY**) ..... **PULL**

After about 5 min:

IF CDU (*):

- ADIRU 2 & 3 INFO ARE LOST ..... ❑

ALL:

C/B **P9** ..... **PUSH**

IR **1** MODE SELECT ..... **OFF**

After 5 sec time countdown on IR 1:

- **ADIRS ON BAT** GROUND WARNINGS DISAPPEAR ..... ❑

- **ON BAT** LIGHT EXTINGUISHES ..... ❑

IR 2 & 3 ROTARY MODE SELECTOR ..... **OFF**

EXT PWR ..... **ON**

BAT 1 & 2 ..... **ON**

IR 1 / 2 / 3 ROTARY MODE SELECTOR ..... **NAV / OFF / NAV**

❑

E48. AIRSTAIRS 2 (*)

C/B **T10** AND **T11** (**STAIRS CTRL NORM & STBY**) ..... **PUSH**

AIRSTAIRS ..... **DEPLOY**

- SAFETY RAMP CAN EASILY BE EXTENDED/STOWED ..... ❑

AIRSTAIRS ..... **RETRACT**

- CONTROL PANEL LIGHTS EXTINGUISH WHEN AIRSTAIRS IS FULLY STOWED ..... ❑
- AIRSTAIRS REMOTE OPERATION FROM NOSE GEAR CONTROL PANEL ..... ❑

MAINT BUS ..... **OFF**

EXT PWR ..... **OFF**

BAT 1 & 2 ..... **OFF**

- AIRSTAIRS OPERATE WHEN SUPPLIED BY HOT BAT BUS 2 ONLY ..... ❑

Note: ON BAT only stairs lighting is inhibited

EXT PWR ..... **ON**

BAT 1 & 2 ..... **ON**

❑

PART 2 TECHNICAL FLIGHT

COCKPIT AND CABIN CHECKS

F1. INTRODUCTION

The PART 2 TECHNICAL FLIGHT lists the checks AIRBUS recommends to evaluate the overall condition of **IN SERVICE** A318/A319/A320/A321 aircraft during a non-revenue flight.

The Airworthiness Authorities approved A/C type AFM and/or the official Design Office substituted documents govern the execution of the proposed flight schedule and certification limits published therein must not deliberately be exceeded.

Before technical flight execution a briefing should take place with all crew members participating on the flight. This briefing should include as minimum a review of aircraft technical status, limitations, meteorological conditions, on board documentation and safety procedures.

Any accidental limit exceedance requires the application of the relevant AMM check procedure.

The standard operating procedures (SOP) chapters applicable prior to flight dispatch are as a minimum:

- Flight preparation
- Safety interior inspection
- Preliminary cockpit preparation
- Cockpit preparation
- Before pushback and start

Engine vibration limits: values indicated in this manual are extracted from the AMM.

When the actual level is:

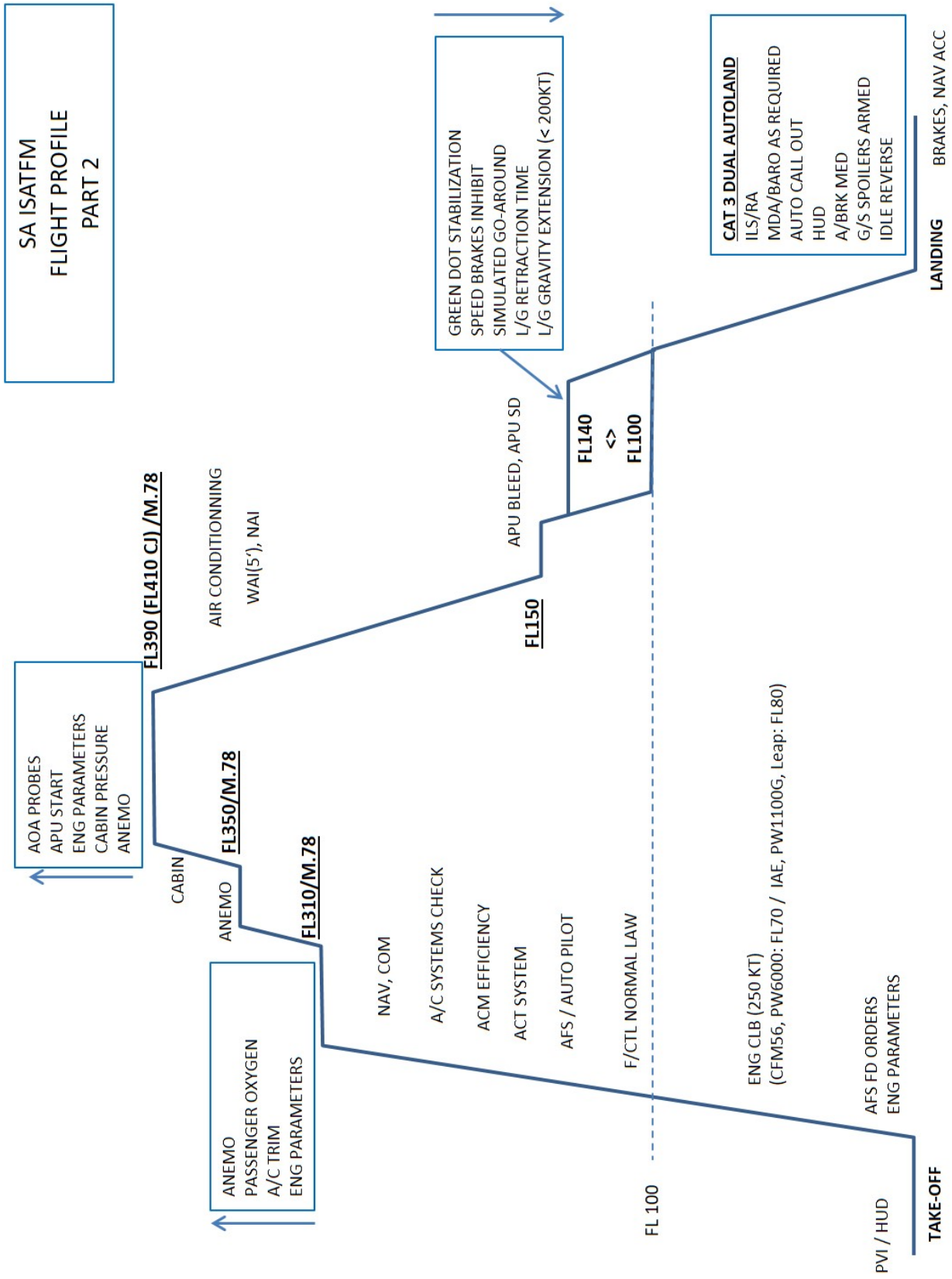
- Below the published limit, no maintenance is required unless comfort is significantly deteriorated (noise, airframe vibrations),
- Above the published, refer to the AMM for further details.

When available, some recommendations are given on the level that may induce comfort issues. These values are given to invite the inspection crew to check that there is no comfort issue when these levels are exceeded.

The crew is reminded that it is not recommended to carry passengers on a TECHNICAL FLIGHT except where they are required to perform duties in the aircraft in connection with the envisaged flight check schedule

This flight profile can be performed by line type rated crews, licensed/validated and current on the aircraft to be flown.

F2. FLIGHT PROFILE



F3. FLIGHT PREPARATION

PREPARE THE A/C FOR A NORMAL DEPARTURE FOLLOWING THE CURRENT A/C PREPARATION PROCEDURE.

ADDITIONAL CENTER TANKS (*)

Note: On A/C fitted with additional center tanks (ACT), except A320NEO ACJ &A321NX, the CG computed by the FMS may be not accurate in case of abnormal fuel distribution in CTR tank and ACT; if CTR tank is not full, expect a real CG 2% more aft than indicated with 1000kg in the ACT (except for A318CJ). For A318CJ, expect FMS CG more aft than real CG.

COCKPIT DOOR (*)

- DOOR CLOSES PROPERLY ..... ❑

With door closed

- COCKPIT DOOR SELECTOR ..... **UNLOCK THEN NORMAL**
- CHECK **FAULT** AND **OPEN** LIGHT ARE NOT ILLUMINATED ..... ❑
- CHECK MECHANICAL BACK-UP LOCKING DEVICE (*) ..... ❑

CABIN GENERAL

- Ascertain prior to the flight departure that all the cockpit and the cabin loose equipment is properly stowed and secured for the take-off
- Sufficient number of cabin oxygen containers must be out of test position for flight
- Ensure safe cockpit / cabin crew coordination during entire flight (e.g. Flight Control check, Depressurization) through PA announcements/Seat belt signs
- Properly bleed the lavatory water heaters and then apply normal power

WATER ..... **25 % MINIMUM**

WASTE ..... **NORMAL SERVICE**

Reset cabin zone temperature to cockpit control ..... ❑

NAVIGATION SYSTEM

- CHECK FOR CORRECT ALTITUDE ON ADR 1, 2, 3 & STBY ..... ❑
- PERFORM AN IRS FAST ALIGNMENT USING PRECISE GATE COORDINATES (*USE GPS POSITION IF AVAILABLE*) ..... ❑

❑

ATSU / FANS (*)

- INITIALIZE ATSU FOR AOC/FANS TESTS ❑

EFB CLASS 2 (*)

- INITIALIZE EFB FOR EFB TESTS ❑

BEFORE ENGINE START

LATEST VALID BEFORE ENGINE START PROCEDURE **PERFORM**

VACUUM LAVATORIES INTEGRITY

- VACUUM LAVATORY FLUSH SYSTEMS OPERATES WHEN VACUUM GENERATOR IS IN USE ❑

ENGINE START

LATEST VALID AUTOMATIC ENGINE START PROCEDURE **PERFORM**

AFTER ENGINE START

LATEST VALID AFTER ENGINE START PROCEDURE **PERFORM**

DAR **RUN**

CABIN (*)

- ARM PASSENGER CABIN DOORS AND EMER EXIT SLIDES ❑
- ECAM DOOR PAGE REFLECTS SLIDES ARMED CONDITION ❑

2 min after the second engine start

- ECAM **T/O MEMO** IS DISPLAYED ❑
- CROSSCHECK ACTUAL GW/CG ON MCDU 1 - 2 FUEL PRED PAGE ❑

❑

DERATED TAKE-OFF (*)

MCDU PERF DRT TO-FLEX TO ..... **ENTER D20**

- CHECK THE ENGINE LIMITS VALUE IS **D20** ON E/WD ..... ❑

MCDU PERF DRT TO-FLEX TO **D20** ..... **CLEAR**

FLAPS ..... **AS REQUIRED**

MCDU PERF PAGE ..... **CLEAR FLX TO TEMP**

- THRUST LIMIT MODE IN **TOGA** ..... ❑

PITCH TRIM ..... **SET TO DEFINED CG**

RUDDER TRIM **0**

AIDS: TAKE-OFF REPORT <**04**> ..... **PREPARED**

HUD (*) / PVI (*) ..... **PREPARED**

❑

F4. TAXI

LATEST VALID TAXI PROCEDURE ..... **PERFORM**

OANS (*)

During taxi out

EFIS CTL PNL ND 1 (2) RANGE ..... **ZOOM**

CAPT (F/O) CDD ..... **SELECT AIRPORT MENU**

- CHECK ACCURACY AND DISPLAY THROUGH PLAN / NAV MODES ..... ❑

After test completion

EFIS CTL PNL ND 1 (2) MODE & RANGE ..... **AS REQUIRED**

NORMAL BRAKING - A/C BRAKING

- CM1 NORMAL BRAKING ..... ❑
- CM2 NORMAL BRAKING ..... ❑

A/C STEERING

- CM1 STEERING HANDLE ..... ❑
- CM1 RUDDER PEDALS ..... ❑

- CM2 STEERING HANDLE ..... ❑
- CM2 RUDDER PEDALS ..... ❑

❑

BEFORE TAKE OFF

F5. MAX RATED TAKE OFF

LATEST VALID BEFORE TAKE OFF PROCEDURE..... **PERFORM**

RECORD:	OAT:	QNH:	PRESS ALT:	
BLEED DEMAND:	NAI: ON / OFF	WAI: ON / OFF	PACK 1:	ON / OFF
			PACK 2:	ON / OFF

THRUST RATING (TOGA) & ACQUISITION CHECK

When aligned on the RWY, record the ECAM TOGA thrust target:

(CFM • IAE• PW)	ECAM TARGET	TABLE TARGET*
N1 • EPR		
Tolerance	**0.5**% N1 • **0.015** EPR • **0.5**% N1	

* IF REQUIRED, TABLE TARGET CAN BE OBTAINED VIA PEP SOFTWARE

When the A/C speed is **80 kt** print AIDS Take-Off report **<04>** and record:

GMT.....

(CFM • IAE• PW)	ENG 1	ENG2	ECAM TARGET
N1 • EPR			
EGT			
Maximum allowable difference TOGA (actual/target)	**0.5**% N1 • **0.015** EPR • **0.5**% N1		

❑

TAKE OFF

HUD (*) / PVI (*)

- VERIFY THE ROLL OUT COMMAND FUNCTIONS PROPERLY..... ❑

During initial climb, record engine VIB indications at T/O thrust:

	ENG 1	ENG2	
N1 VIB			CFMI56 / LEAP..... max **4.0** units IAE / PW1100G..... max **5.0** units PW6000 ..... max **3.3** units
N2 VIB			CFMI56 / LEAP..... max **4.3** units IAE / PW1100G..... max **5.0** units PW6000 ..... max **3.3** units

❑

❑

Note: Fan trim balance is recommended any time N1 peak vibration exceeds 2 CU for IAE.
Waiting until N1 peak vibration approaches or exceeds the 5.0 unit limit may require multiple fan trim balances to bring N1 vibration down to an acceptable limit.

❑

F6. AUTO FLIGHT SYSTEMS AFTER T/O

When at/or above **30 ft** RA height:

- FD PITCH AND ROLL BARS APPEAR ..... ❑
- ROLL BAR DIRECTS TO TRACK LATERAL AFS MODE IS SELECTED ..... ❑
- PITCH BAR DIRECTS TO HOLD **V2 + 10**, BUT LIMITED TO **18**° ..... ❑

F7. AUTO THRUST SYSTEM

- AT THRUST RED ALT, "***LVR CLB***" INDICATION IS FLASHING ON THE FMA ..... ❑
- WHEN ENGINE THROTTLES SET INTO CL GATE, "***THR CLB***" GREEN ON FMA ..... ❑

IAE OR CFM-5B4 ENGINES (*)

- **B** SYMBOL FOR BUMP FUNCTION DISAPPEARS ..... ❑

CFM-5B3 ENGINES (*)

- **B** SYMBOL FOR BUMP FUNCTION REMAINS DISPLAYED ..... ❑

A/C GENERAL

LATEST VALID AFTER TAKE OFF PROCEDURE ..... **PERFORM**

F8. THRUST RATING (CLIMB) & ACQUISITION CHECK (250/300/.78)

The maximum climb tables provided in the FCOM are approved for normal climb conditions.

During standard climb speed profile **250kt** / **300kt** / **M.78** record engine CLB power.

RECORD:	ALT:	IAS:	TAT/SAT:

(CFM • IAE• PW)	ENG 1	ENG2	ECAM TARGET
N1 • EPR			
EGT			
Maximum allowable difference Max CLB (actual/target)	**0.5**% N1 • **0.015** EPR • **0.5**% N1		

❑

❑

F9. FLIGHT CONTROL AUTHORITY

GMT.....

ADVISE CABIN CREW

ALTITUDE ..... **AS CLEARED ABOVE FL100**

SPEED ..... **250-300 KTS**

FLAPS **0**

L/G ..... **UP**

AP ..... **OFF**

FD ..... **ON**

ECAM PAGE ..... **SET TO F/CTL**

CABIN CREW MEMBERS ARE SAFELY SEATED AND BELTED ..... **CHECK**

LDG LIGHTS ..... **RETRACT**

ROLL

- BANK ANGLE UP TO **33°** HELD CONSTANT (*UPON SIDE STICK RELEASE*) ..... ❑
- SPOILERS **2** TO **5** EXTEND DURING MANEUVERS ..... ❑

PITCH

- PITCH ATTITUDE HELD CONSTANT (*UPON SIDE STICK RELEASE*) ..... ❑

ECAM PAGE ..... **SET TO MEMO – CRUISE**

F10. AUTO FLIGHT SYSTEMS

With the AP 1(2) in CMD initiate the climb towards FL 310

Alternate the AP 1(2) operation for AFS modes evaluations throughout the climb

- **AP 1** ..... ❑
- **AP 2** ..... ❑

CLIMB TO FL 310

❑

F11. ADDITIONAL CENTER TANK (*)

ECAM PAGE ..... **SET TO FUEL**

A318ELITE:

Note: Disregard "FUEL ACT XFR FAULT" when the sum of any wing OUTER + INNER TANK < 4950kg (10900lb) and ACT has more than 250kg (550lb) and ACT is on AUTO. The ACT transfer triangle is indicated on FUEL page when FUEL ACT XFR FAULT conditions are cleared.

When the slats are retracted and the CTR quantity < 250kg (550lb), and sufficient cabin Δp:

- AUTOMATIC ACT TRANSFER STARTS ..... ❑
- ACT STARTS TOWARDS CTR TANK, ACT TRANSFER TRIANGLE IS INDICATED ON FUEL PAGE ..... ❑

A319 CEO CJ:

Note: Disregard "FUEL ACT XFR FAULT" when CTR TANK < 3000kg (6600lb) and one ACT has more than 250kg (550lb) and ACT is on AUTO.

When NLG up-locked (or R MLG up-locked + 30min timer delay if FTIS installed), and at least one ACT is not empty, and CTR TANK qty<5000kg (11000lb), and sufficient cabin Δp (obtained when the A/C is at about FL100): ACT transfer sequence starts

- SEQUENCE "**A**": FROM ACT N° **6** THEN **5**, **4**, **3**, **2** AND **1** ..... ❑
- SEQUENCE "**B**": FROM ACT N° **5** THEN **3**, **6**, **4**, **2** AND **1** ..... ❑
- ACT TRANSFER TRIANGLE IS INDICATED ON FUEL PAGE ..... ❑

A319ER/A320/A321CEO/A321NEO:

Note: Disregard "FUEL ACT XFR FAULT" when CTR TANK < 3000kg (6600lb) and one ACT has more than 250kg (550lb) and ACT is on AUTO. The ACT transfer triangle is indicated on FUEL page when FUEL ACT XFR FAULT conditions are cleared.

When the slats are retracted and the CTR TANK high level sensor is dry for at least 10min, and sufficient cabin Δp (*obtained when the A/C is at about FL100*): ACT transfer sequence starts

- ACT **2** THEN **1** TRANSFERS TO CTR TANK (even if ACT transfer triangle is not shown) ..... ❑

CLIMB TO FL 310

❑

A321NX

Note: Disregard "FUEL ACT XFR FAULT" when CTR TANK < 3000kg (6600lb) and one ACT has more than 250kg (550lb) and ACT is on AUTO.

When R MLG up-locked + 30min timer delay, and at least one ACT is not empty, and CTR TANK qty<5750kg (12650lb), and sufficient cabin Δp (obtained when the A/C is at about FL100): ACT transfer sequence starts

- SEQUENCE "**B**": FROM ACT **FWD** THEN AFT **2** AND AFT **1** ..... ❑
- SEQUENCE "**D**": FROM ACT AFT **2** THEN **FWD** AND AFT **1** ..... ❑
- ACT TRANSFER TRIANGLE IS INDICATED ON FUEL PAGE ..... ❑

A319 / A320 NEO ACJ

Note: Disregard "FUEL ACT XFR FAULT" when CTR TANK < 3000kg (6600lb) and one ACT has more than 250kg (550lb) and ACT is on AUTO.

When R MLG up-locked + 30min timer delay, and at least one ACT is not empty, and CTR TANK qty<5000kg (11000lb), and sufficient cabin Δp (obtained when the A/C is at about FL100): ACT transfer sequence starts

- SEQUENCE "**A**": FROM ACT AFT 4 THEN **FWD** AFT **3**, AFT **2** AND AFT **1** ..... ❑
- SEQUENCE "**B**": FROM ACT **FWD** THEN AFT **2** AND AFT **1** ..... ❑
- SEQUENCE "**C**": FROM ACT AFT **3** THEN **FWD**, AFT **4**, AFT 2 AND AFT **1** ..... ❑
- ACT TRANSFER TRIANGLE IS INDICATED ON FUEL PAGE ..... ❑

ALL:

When ACT is empty:

- ACT TRANSFER STOPS ..... ❑

ECAM PAGE ..... **SET TO MEMO – CRUISE**

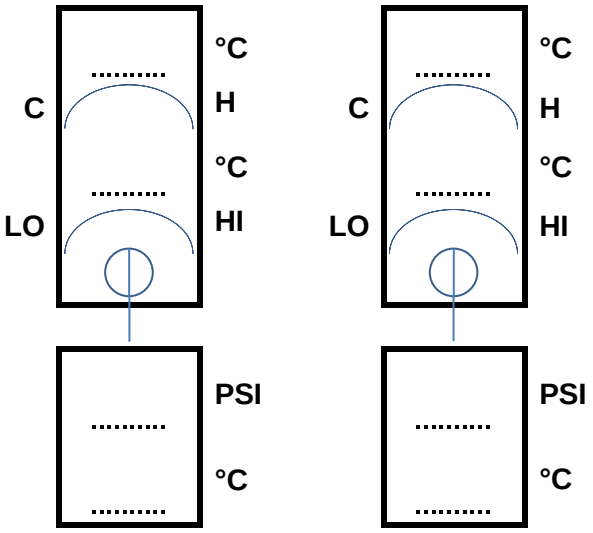
CLIMB TO FL 310

❑

F12. ACM EFFICIENCY CHECK

(ADVISE CABIN CREW) GMT.....

PACK FLOW ..... **NORM**
AIR COND ZONES TEMPERATURE ..... **12 O'CLOCK**
WAI ..... **ON**
ECAM PAGE ..... **SET TO BLEED**



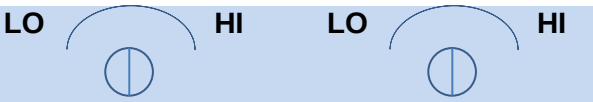
BY-PASS VALVE POS. AROUND **11-13 O'CLOCK** ..... ❑

PACK FLOW IS AROUND **12 O'CLOCK** ..... ❑

PRESSURE IS **45** PSI +/- 5 (**CEO**)
42 PSI +/- 4 (**NEO**) ..... ❑

TEMPERATURE IS **200** °C + 10 / - 40 (**CEO**)
200 °C +/- 25 (**NEO**) ..... ❑

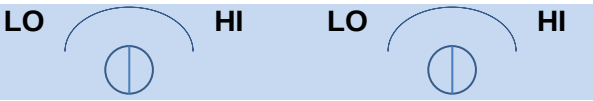
FOR ALL (EXCEPT A321 CEO): PACK FLOW ..... **HI**



PACK FLOW IS AROUND **HI** ..... ❑

AIR COND ZONES TEMPERATURE ..... **SET TO HOT**

FOR ALL (EXCEPT A318): PACK FLOW ..... **LO** (A319/A320/A321NEO) • **ECON** (A321 CEO)



PACK FLOW IS AROUND **LO** ..... ❑

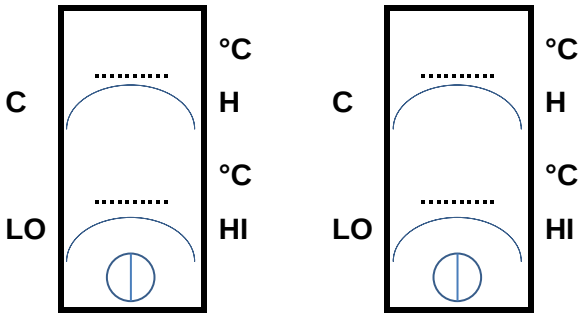
AIR COND ZONES TEMPERATURE ..... **SET TO COLD**
- TRIM AIR VALVES ARE PROPERLY SLAVED ..... ❑

FOR A318 ONLY: PACK FLOW **NORM** AND ALL TEMP. **12 O'CLOCK** ..... **SET**

When the POT 1 - 2 are thermally stabilized record pack parameters

CLIMB TO FL 310

❑



BY-PASS VALVE POS. AROUND **11-13 O'CLOCK** ❑

PACK FLOW IS AROUND **12 O'CLOCK** ❑

PACK FLOW ..... **NORM**
AIR COND ZONES TEMPERATURE ..... **12 O'CLOCK**
WAI ..... **OFF**

CLIMB TO FL 310

❑

F13. COMMUNICATION SYSTEMS

ATSU/FANS (*)

FANS ATC FUNCTIONS: NOTIFICATION ❑ CPDLC FUNCTIONS ❑ ❑
VHF DATA LINK ❑ SATCOM DATA LINK ❑

ATSU AOC FUNCTIONS: VHF DATA LINK ❑ SATCOM DATA LINK ❑ ❑
HF DATA LINK ❑

VHF COM

ACTIVE VHF ATC FREQUENCY:.....

Record the active VHF frequency before test execution and ensure PF maintains communication with active ATC. PNF check VHF 1-2-3 including SELCAL and 8.33 KHz spacing

	Station	FL	Distance	Quality	SELCAL (if avail.)	8.33 KHz spacing	
VHF 1				❑	❑	❑	❑
VHF 2				❑	❑	❑	❑
VHF 3				❑	❑	❑	❑

After VHF COM check completion perform a radio check on active VHF ATC frequency ❑

HF COM (*)

Check HF 1 (2) including SELCAL

	Station	Frequency	Quality	SELCAL (if avail.)	
HF 1			❑	❑	❑
HF 2			❑	❑	❑

The most common HF frequencies for in-flight use are listed here below:

. TOULOUSE (Technique): 2857 -6543 - 11354
. STOCKHOLM : 5541 - 8930 - 11345 - 13342
. LUFTHANSA : 10078 - 13296
. HAMBURG : 8936

SATCOM (*)

Check SATCOM 1 (2)

	Station	Quality	
SAT 1		❑	❑
SAT 2		❑	❑

In case of incomplete commissioning dial 92 to contact Aussagel or Goonilly ground station

Note: with IRIDIUM SATCOM, SAT 1 only

CLIMB TO FL 310

❑

F14. NAVIGATION SYSTEMS

The VOR - DME - minimum range is 175 Nm when at FL 310 - For different altitude apply the following altitude correction:

. Add 5 Nm for every 2000ft above FL 310
. Subtract 5 Nm for every 2000ft below FL 310

VOR

Check VOR 1 - 2 range and accuracy

	Station	FL	Distance	>175 Nm+ altitude correction	Accuracy	Audio Ident	Auto Decoding	
VOR 1				❑	❑	❑	❑	❑
VOR 2				❑	❑	❑	❑	❑

DME

Check DME 1 - 2 range and accuracy

	Station	FL	Distance	>175 Nm+ altitude correction	Accuracy	Audio Ident	
DME 1				❑	❑	❑	❑
DME 2				❑	❑	❑	❑

Note: For DME audio ident check both "LS" P/B on FCU must be deselected.

ADF (*)

Check ADF 1 - 2 range and accuracy

	Station	FL	Distance	> 50 Nm	Accuracy	Audio Ident	Auto Decoding	
ADF 1				❑	❑	❑	❑	❑
ADF 2				❑	❑	❑	❑	❑

ATC

Check ATC 1 - 2 reception by the ground station including Alt. Report and IDENT

	Station	Alt. report	IDENT	
ATC 1		❑	❑	❑
ATC 2		❑	❑	❑

CLIMB TO FL 310

❑

WEATHER RADAR

Verify WXR 1(2) on all the available operating modes
WXR calibration (Multiscan STD *):
- In stable cruise, above FL170, switch ON WXR1 (2) in AUTO mode for at least 4min.

	WX Modes	MAP Mode	TURB Mode	HZD Mode	Tilt / ELEVN	Gain	GCS	
WXR1	❑	❑	❑	❑	❑	❑	❑	❑
WXR2	❑	❑	❑	❑	❑	❑	❑	❑

TCAS

Depending of available traffic, check as much as possible TCAS functions

TA/RA Switching	All traffic	Above	Below	TA	
❑	❑	❑	❑	❑	❑

ADS-B / ATSAW / ITP (*)

Depending on available traffic, check as much as possible ADS-B / ATSAW functions

Traffic Selector	MCDU functions	DMC3 switching	ITP	
❑	❑	❑	❑	❑

GPS

Verify the GPS 1 - 2 throughout the flight ..... ❑

FMGC

Verify the FMGC 1 - 2 throughout the flight ..... ❑

STBY COMPASS

Check STBY COMPASS in stable straight and level flight against the ND (max difference 8°) ❑

EFB CLASS 2 (*)

Check EFB functions throughout the flight ..... ❑

COCKPIT DOOR VIDEO (*)

Check cockpit surveillance cameras (1+2&3) either on SD or on rear panel monitor ..... ❑

CLIMB TO FL 310

❑

F15. A/C SYSTEM MONITORING

Select in sequence all ECAM SD pages and check for no abnormal indication.

Record data as indicated:

ENG ..... ❑

BLEED ..... ❑

PRESS ..... ❑

ELEC ..... ❑

BAT 1	BAT 2			
..... V	 V	- the voltage is :	**25**V < < **31**V	❑
..... A	..... A			

TR 1	TR 2			
..... V	 V	- the voltage is :	**25**V < < **31**V	❑
..... A	..... A			

GEN 1	GEN 2			
..... %	..... %			
..... V	 V	- the voltage is :	**115** V +/- 5	❑
..... Hz	..... Hz	- the frequency is :	**400** Hz +/- 5	❑

IDG 1	IDG 2			
		average temperature is :	**90**° C (CEO) / **70**°C (NEO)	❑
..... °C	..... °C	(for information advisory is :	**147**° C)	

CLIMB TO FL 310

❑

HYD ..... ❑

GREEN	BLUE	YELLOW
…….. PSI	…….. PSI	……..PSI
		

the pressure is: **3000** Psi +/- 200 ..... ❑

FUEL ..... ❑

APU ..... ❑

COND ..... ❑

DOOR ..... ❑

WHEEL ..... ❑

F/CTL ..... ❑

STATUS PAGE REFLECTS THE CURRENT A/C CONFIGURATION ..... ❑

CLIMB TO FL 310

❑

F16. ENGINE PARAMETERS RECORD

GMT.....

ALTITUDE **FL310**

SPEED **M0.78**

A/THR ..... **OFF**

THRUST SYMMETRICAL ..... **ADJUST**

RECORD:	TAT:	SAT:	MN/CAS:

ECAM PAGE ..... **SET TO ENG**

Record and if available print **AIDS Cruise Report <01>:**

	ENG 1	**ENG 2**		
EPR (*)				
N1				
EGT				
N2				
FF				
OIL QTY				
OIL PRESS				
OIL TEMP				
VIB N1			CFMI56 / LEAP ..... max **4.0** units IAE / PW1100G ..... max **5.0** units PW6000 ..... max **3.3** units	❑
VIB N2			CFMI56 / LEAP ..... max **4.3** units IAE / PW1100G ..... max **5.0** units PW6000 ..... max **3.3** units	❑
NAC TEMP **(EIS 2 STD 4 only)**	0 ⌒	⌒ 400	(Max: **300°C IAE, 400°C CFM PW)**	

A/THR ..... **ON**

ECAM PAGE ..... **SET TO MEMO – CRUISE**

Note: Fan trim balance is recommended any time N1 peak vibration exceeds 2 CU.

CRUISE AT FL 310

❑

F17. A/C TRIM

GMT.....

ALTITUDE **FL310**

SPEED **M0.78**

AP ..... **ON** in **ALT / HDG** or **TRACK** mode

A/THR ..... **ON**

Note: MAN thrust might be used with symmetrical engine power setting

Ensure that the engine power and the FOB are symmetrical

Ensure steady lateral stabilization achieved

		FAC P/N < CAA10	FAC P/N >= CAA10
ROLL (PFD)		Max +/- **1.0°**	
LH AIL			
RH AIL			
DELTA AIL			Max **1.9°**
RUDT (pedestal)		Max **L 2.3° R1.0**	

❑

❑

*Note: Refer to **FCOM/DSC/27/20/10/70/AIRCRAFT TRIMMING***

CRUISE AT FL310

❑

F18. PASSENGER OXYGEN

ADVISE CABIN CREW

Make sure that all the cabin and all the lavatory PSU maintenance test grips are on test position

OXYGEN MASK MAN ON ..... **PRESS**

- PASSENGER **SYS ON** LIGHT ILLUMINATES ..... ❑
- **OXY PAX ON** ECAM MEMO DISPLAYED (*) ..... ❑

CABIN VIDEO (*)

- VIDEO PRESENTATION IS CUT AND THE RETRACTABLE MONITORS STOW ..... ❑

- PUBLIC ADDRESS AUTO ANNOUNCEMENT MAY BE BROADCASTED (*) ..... ❑
- ALL CABIN AND LAVATORY PSU RELEASE TO TEST GRIP ..... ❑

OXYGEN TMR RESET ..... **ON**

- PASSENGER **SYS ON** light turns off (within ***30min*** with Gaseous Passenger Oxygen) ..... ❑

Note: Gaseous Passenger Oxygen System:
- SYS ON is a function of pressure delivered to the cabin distribution system.
- When the system is de-pressurized the SYS ON light will extinguish.

CRUISE AT FL310

❑

F19. ANEMOMETRY RECORD

GMT.....

ALTITUDE **FL310**

SPEED **M0.78**

AP ..... **ON**

A/THR ..... **ON**

Recording should be taken in symmetrical flight (no sideslip), clean configuration, and in straight and level flight.

ANEMOMETRY RECORD SHEET ..... **FILL**

- For ADR3 data check, select:

- AP ..... **1** - ATC ..... **1** - AIR DATA ..... **F/O 3**	**OR**	- AP ..... **2** - ATC ..... **2** - AIR DATA ..... **CAPT 3**

After recording

ATC ..... **AS REQUIRED**

AIR DATA ..... **NORM**

CRUISE AT FL310

ANEMOMETRY RECORD SHEET:

		MAIN SYSTEMS			STBY INSTRUMENTS	
		ADR 1 (CAPT)	ADR 2 (F/O)	ADR 3		
FL310 ***M0.78***	ALTITUDE				ft	m
	AIRSPEED					
	MACH					
	TAT					
FL350 ***M0.78***	ALTITUDE				ft	m
	AIRSPEED					
	MACH					
	TAT					
CRZ FL 390 or 410(CJ) ***M0.78***	ALTITUDE				ft	m
	AIRSPEED					
	MACH					
	TAT					
	AOA				**A318/A319/A320/A321 AOA** REFER TO THE NEXT PAGE FOR AOA DATA VALIDATION	
	PTCH					
	FPA					
	AOA-(PTCH – FPA)					

ANEMOMETRY RECORD (RVSM DATA VALIDATION):

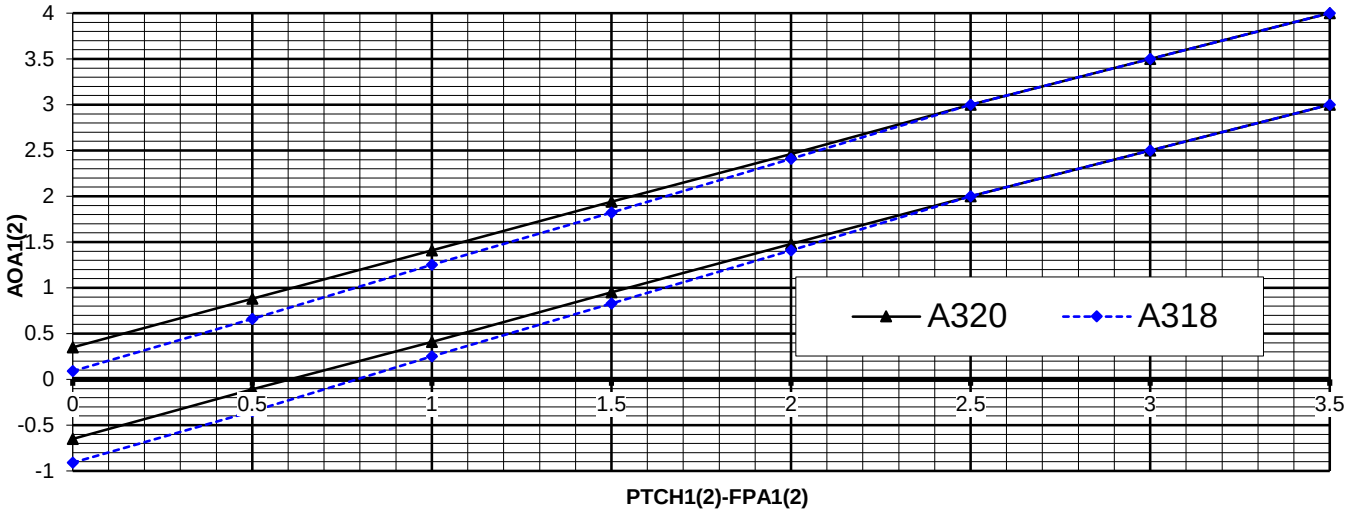
		REPORT LIMITS FROM FCOM * - FCOM/DSC/34-NAV/10/20/Maximum difference speed/Mach indication - FCOM/PRO/SPO/50/RVSM NORMAL PROCEDURE			
		Δ ADR1 & ADR2 MAX LIMIT	Δ ADR 1/2 & ADR 3 MAX LIMIT	Δ ADR 1/2 & STBY MAX LIMIT	
FL310	ALT	130 ft	_____ft *	390 ft	❑
	IAS	3 kt	_____kt *	9 kt	❑
	MN	M0.010	MN_____	M 0.025	❑
FL350	ALT	130 ft	_____ft *	415 ft	❑
	IAS	3 kt	_____kt *	8 kt	❑
	MN	M0.010	MN_____	M 0.025	❑
FL390 (FL410)	ALT	130 ft	_____ft *	445 ft	❑
	IAS	3 kt	_____kt *	8 kt	❑
	MN	M0.010	MN_____	M 0.025	❑

ANEMOMETRY RECORD (AOA DATA VALIDATION):

For A319/A321 all AOA and A318/A320 AOA3

- AOA MUST NOT DIFFER BY MORE THAN 0.5° COMPARED TO (PITCH - FPA)..... ❑

For A318/A320 AOA1 and AOA2 only



Note :

A319/A320/A321: 1 Single AOA could differ by max.+/- 0.7° compared to PITCH-FPA provided the 2 others remain within the above mentioned tolerances.

❑

F20. ANEMOMETRY RECORD FL350 / M.78

GMT.....

ALTITUDE **FL350**

SPEED **M0.78**

AP ..... **ON**

A/THR ..... **ON**

Recording should be taken in symmetrical flight (no sideslip), clean configuration, and in straight and level flight.

ANEMOMETRY RECORD SHEET ..... **FILL**

- For ADR3 data check, select:

- AP **1**	**OR**	- AP **2**
- ATC **1**		- ATC **2**
- AIR DATA ..... **F/O 3**		- AIR DATA ..... **CAPT 3**

After recording

ATC ..... **AS REQUIRED**

AIR DATA ..... **NORM**

F21. CABIN CHECKS

WINGS ❑

- CHECK THE GENERAL ASPECT OF THE WING: SPOILERS ARE FLUSH WITH THE WING SURFACE / SEALS ARE NOT DAMAGED OR PROTRUDING

COCKPIT DOOR ❑

- CHECK COCKPIT DOOR LOCKS PROPERLY
- CHECK FWD LH ENTRY LIGHT AUTO DIM WHEN COCKPIT DOOR OPENED
- CHECK REMOTE COCKPIT DOOR UNLOCK

CABIN GENERAL ❑

- CHECK OVERALL CABIN FOR UNUSUAL VIBRATION / UNUSUAL NOISES (DOOR, KARMAN, HYDRAULIC) / AIR OR WATER LEAKS / AIR SUPPLY EVENLY DISTRIBUTION / ABNORMAL ODORS
- CHECK ON RANDOM BASIS WINDOW SHADES / READING LIGHTS / INDIVIDUAL AIR OUTLETS / CABIN ATTENDANT CALL / HATRACK DOORS LOCKING

PAX / EMER EXIT DOOR ❑

- CHECK LOCKED INDEX / SLIDE ARMED LABELS
- CHECK FLOOR HEATING PANELS AT DOOR 2&3 LH/RH (A321 ONLY) AND DOORS 1 LH/RH (*)

LAV ❑

- CHECK DOOR CLOSURE AND LOCKING / SINK PROPER DRAINAGE / HOT WATER REGULATION / WATER FAUCET AUTO CLOSURE / TOILET FLUSH / AIR OUTLETS / AIR EXTRACTION FLOW AND NOISE

GALLEY ❑

- CHECK SINK PROPER DRAINAGE (AUTO AND MANUAL OVERRIDE) / EQUIPMENTS (AIR CHILLER, OVEN, COFFEE MAKER …)

VIDEO (*) ❑

- CHECK IFE / VTR - DVD - LCDS / AIRSHOW / OUTSIDE CAMERA / TV

TELEPHONE (*) ❑

- CHECK SATCOM / TFTS / GSM ON BOARD

FAP ❑

- CHECK FAP FUNCTIONS (AVAILABLE SYSTEM PAGES, SYS INFO / ICE PROT STATUS, CAUTION LIGHT STATUS)

CLIMB TO FL390 / FL410

❑

F22. ANEMOMETRY RECORD FL390 (FL410) / M.78

GMT.....

ALTITUDE ..... **FL390 OR FL410**

SPEED **M0.78**

AP ..... **ON**

A/THR ..... **ON**

Recording should be taken in symmetrical flight (no sideslip), clean configuration, and in straight and level flight.

ANEMOMETRY RECORD SHEET ..... **FILL**

- For ADR3 data check, select:

- AP ..... **1** - ATC ..... **1** - AIR DATA ..... **F/O 3**	**OR**	- AP ..... **2** - ATC ..... **2** - AIR DATA ..... **CAPT 3**

After recording

ATC ..... **AS REQUIRED**

AIR DATA ..... **NORM**

CRUISE AT FL390 / FL410

F23. CABIN PRESSURE

GMT.....

ALTITUDE ..... **FL390 or FL410**

SPEED **M0.78**

Record Cabin pressure:

ΔP (PSI)		**8.0 psi ± 0.1(All except A/C type mentioned below)** **8.3 psi ± 0.1 (FL410 for A319CJ/A318 ELITE / A320VIP)** **8.5 psi ± 0.1 (FL390 for A320NEO ACJ)** **8.8 psi ± 0.1 (FL410 for A320NEO ACJ)**

❑

❑

F24. ENGINE PARAMETERS RECORD

GMT.....

ALTITUDE..... **FL390 or FL410**

SPEED..... **M0.78**

AP..... **ON**

A/THR..... **OFF**

THRUST SYMMETRICAL..... **ADJUST**

RECORD:	TAT:	SAT:	MN/CAS:

ECAM PAGE..... **SET TO ENG**

Record and if available print **AIDS Cruise Report <01>:**

	ENG 1	ENG 2	
EPR(*)			
N1			
EGT			
N2			
FF			
OIL QTY			
OIL PRESS			
OIL TEMP			
VIB N1			CFMI56 / LEAP.....max **4.0** units IAE / PW1100G.....max **5.0** units PW6000 .....max **3.3** units ❑
VIB N2			CFMI56 / LEAP.....max **4.3** units IAE / PW1100G.....max **5.0** units PW6000 .....max **3.3** units ❑
NAC TEMP **(EIS 2 STD 4 only)**	0	400	(Max: **300°C IAE, 400°C CFM PW)**

A/THR..... **ON**

ECAM PAGE..... **SET TO MEMO – CRUISE**

Note: Fan trim balance is recommended any time N1 peak vibration exceeds 2 CU.

❑

F25. APU START AT THE ENVELOPE LIMIT

GMT.....

ADVISE CABIN CREW

ALTITUDE ..... **FL390 or FL410**

SPEED **M0.78**

RECORD:	FL:	TAT:	SAT:	MN/CAS:

APU MASTER SW ..... **ON**

- **FLAP OPEN** MESSAGE ON ECAM SD PAGE ..... ❑

APU ..... **START**

Note: 3 successive start attempts are allowed, wait 60 minutes before attempting 3 more cycles.

RECORD:	1st attempt	2nd (if any)	3rd (if any)
EGT peak (°C)			
Corresponding N (%)			
Start time from START ON to AVAIL			

- APU START IS SUCCESSFUL ..... ❑

When the APU is thermally stabilized, record:

N (%)		**101** % +/- 1 for HWL36-300 **100** % +/- 1 for HWL131-9 and APIC	❑
EGT (°C)		HWL36-300 max **450** °C up to ISA + 35 °C HWL131-9 max **430** °C up to ISA + 35 °C APIC max **420** °C up to ISA + 35 °C	❑

Note: HWL131-9 = Honeywell 131-9
HWL36-300 = Honeywell 36-300 (Garrett) - APU start limited to FL 390 (option not proposed for A319CJ)
APIC = APS3200
APIC = PWC

❑

F26. AOA PROBES DYNAMIC CHECK

GMT.....

IF AOA VANES ARE BLOCKED, THE A/C PROTECTION IS AFFECTED AND ERRONEOUS CHARACTERISTIC SPEEDS MIGHT BE DISPLAYED

ALTITUDE ..... **FL390 or FL410**

SPEED **M.78**

AP ..... **OFF**

AIDS ALPHA CALL-UP FOR AOA MONITORING ..... **PREPARE**

SPEED BRAKE ..... **FULL**

- THE 3 AOA VALUES INCREASE WITH THE AIRBRAKE EXTENSION WITHOUT DELAY ..... ❑

- THE 3 AOA VALUES ARE CONSISTENT ..... ❑

SPEED BRAKE ..... **RETRACT**

- THE 3 AOA VALUES DECREASE WITH THE AIRBRAKE RETRACTION WITHOUT DELAY ..... ❑

Note: - This test should be performed at the end of the cruise phase so as to maximize the cold soak time.
- Cold soak time will start after 20 min. with SAT<-20°C.
- AOA3 may not be available. In this case, check only AOA1 & AOA2.

❑

F27. AIR CONDITIONING

GMT.....

ON FAP RESET “CABIN ZONE TEMPERATURE” TO CKPT (*)

ECAM PAGE ..... **SET TO COND**

When all the zone temperatures are properly stabilized

COCKPIT	FWD CABIN	AFT CABIN
25°C +/-2 (77°F +/- 4)		

FWD CARGO	AFT CARGO	BULK CARGO
16°C +/-2 (61°F +/- 4)		

- TRIM AIR VALVES REGULATE THE SELECTED TEMPERATURE ..... ❑

- CHECK THE PROPER VENTILATION OF CABIN TEMPERATURE SENSORS ..... ❑

- ASSESS THE TEMPERATURE LEVEL FELT IN THE CABIN CORRESPONDS TO THE ECAM DISPLAYED VALUES ..... ❑

ALL TEMPERATURE SELECTORS ..... **SET TO FULL HOT** THEN **FULL COLD**

- TRIM AIR VALVES FOLLOW PROPERLY THE DEMAND ..... ❑

ALL ZONE TEMPERATURE SELECTORS ..... **AS REQUIRED**

ECAM PAGE ..... **SET TO MEMO - CRUISE**

Note: *- The COCKPIT nominal temperature is obtained with all the air outlets open and with the cockpit door closed*
- The CARGO compartment temperatures are function of flight time and SAT

CRUISE AT FL390 / FL410

❑

F28. WING ANTI ICE

GMT.....

ENG 1 (2) THRUST ..... **AS REQUIRED**

ECAM PAGE ..... **SET TO BLEED**

WING ANTI ICE ..... **ON FOR 5 MIN**

- **WING A.ICE** ECAM MEMO ..... ❑
- WING A.ICE VALVES OPENED ..... ❑
- WING A.ICE SYSTEM OPERATES CORRECTLY ..... ❑

WING ANTI ICE ..... **OFF**

F29. ENGINE ANTI ICE

GMT.....

ENG 1 (2) THRUST ..... **IDLE**

ENG 1 (2) ANTI ICE ..... **ON**

- **ENG A.ICE** ECAM MEMO ..... ❑
- ENG A.ICE SYSTEM OPERATES CORRECTLY ..... ❑

ENG 1 (2) ANTI ICE ..... **OFF**

ECAM PAGE ..... **SET TO MEMO - CRUISE**

DESCENT

❑

F30. ECS SUPPLY FROM THE APU BLEED

GMT.....

ALTITUDE **FL150**

SPEED ..... **AS REQUIRED**

FLAPS ..... **AS REQUIRED**

APU ..... **AVAIL**

WING ANTI ICE ..... **OFF**

ECAM PAGE ..... **SET TO BLEED**

APU BLEED ..... **ON**

RECORD:	TAT:	SAT:	IAS:

When the APU is thermally stabilized

Record from ECAM APU system page:

N (%)		**101** % +/- 1 for HWL36-300 **100** % +/- 1 for HWL131-9 and APIC	❑
EGT (°C)		HWL36-300 max **626** °C up to ISA + 35 °C HWL131-9 max **630** °C up to ISA + 35 °C APIC max **637** °C up to ISA + 35 °C	❑
PRESS (PSI)		Min **10** PSI	❑

Note: HWL131-9 = Honeywell 131-9
HWL36-300 = Honeywell 36-300 (Garrett)
APIC = APS3200
APIC = PWC

APU BLEED ..... **OFF**

APU ..... **SHUT DOWN**

ECAM PAGE ..... **SET TO MEMO - CRUISE**

❑

CRUISE AT FL150

F31. GREEN DOT STABILIZATION (GWFAC) – CEO

THESE TESTS SHOULD BE CARRIED OUT CLEAR OF CLOUD AND TURBULENCE WITH NORMAL CONTROL LAWS AND PROTECTION FUNCTIONS OPERATING.

The following published low speed data are calculated and valid when the low speed checks are performed at FL 135 with the CG at 25 %

ALTITUDE ..... **BETWEEN FL140/FL100, RECOMMENDED FL135**
SPEED ..... **GREEN DOT (GD)**
FLAPS **0**
L/G ..... **UP**
AP & A/THR ..... **ON**

Prepare AIDS parameter call-up (if available) to monitor:
GWF (DMU Teledyne), GWFK (kg) or GWFL (lbs) (DMU SAGEM), AOA -AOA3, PTCH, CG and FPA data

	CEO AIRCRAFT					
	A318	**A319**	**A320**		**A321**	
x1000 Kg	**CFM / PW GD**	**CFM / IAE GD**	**CFM GD**	**IAE GD**	**CFM / IAE GD**	x1000 Lbs
42,0	174					92,6
44,0	178	173	173	168		97,0
46,0	182	177	177	172		101,4
48,0	186	181	181	176		105,8
50,0	190	185	185	180	185	110,2
52,0	194	189	189	184	188	114,6
54,0	198	193	193	188	191	119,0
56,0	202	197	197	192	194	123,5
58,0	206	201	201	196	197	127,9
60,0	210	205	205	200	200	132,3
62,0		209	209	204	203	136,7
64,0			213	208	206	141,1
66,0					209	145,5
68,0					212	149,9
70,0					215	154,3
72,0					218	158,7
74,0					221	163,1
76,0					224	167,6
+/-	**5**	**5**	**5**	**5**	**5**	+/-

When the GD excursions have stabilized:

RECORD :	ACTUAL	TABLE
Green DOT		

- ACTUAL AND TABLE VALUES DIFFERENCE IS LESS THAN +/-5 KTS ..... ❑

❑

F32. GREEN DOT STABILIZATION (GWFAC) – NEO

THESE TESTS SHOULD BE CARRIED OUT CLEAR OF CLOUD AND TURBULENCE WITH NORMAL CONTROL LAWS AND PROTECTION FUNCTIONS OPERATING.

The following published low speed data are calculated and valid when the low speed checks are performed at FL 135 with the CG at 25 %

ALTITUDE ..... **BETWEEN FL140/FL100, RECOMMENDED FL135**
SPEED ..... **GREEN DOT (GD)**
FLAPS **0**
L/G ..... **UP**
AP & A/THR ..... **ON**

Prepare AIDS parameter call-up (if available) to monitor:
GWF (DMU Teledyne), GWFK (kg) or GWFL (lbs) (DMU SAGEM), AOA -AOA3, PTCH, CG and FPA data

	NEO AIRCRAFT			
	A319	**A320**	**A321**	
x1000 Kg	**CFM / PW GD**	**PW / CFM GD**	**CFM / PW GD**	x1000 Lbs
44,0	173	173		97,0
46,0	177	177		101,4
48,0	181	181		105,8
50,0	185	185	185	110,2
52,0	189	189	188	114,6
54,0	193	193	191	119,0
56,0	197	197	194	123,5
58,0	201	201	197	127,9
60,0	205	205	200	132,3
62,0	209	209	203	136,7
64,0		213	206	141,1
66,0			209	145,5
68,0			212	149,9
70,0			215	154,3
72,0			218	158,7
74,0			221	163,1
76,0			224	167,6
+/-	**5**	**5**	**5**	+/-

When the GD excursions have stabilized:

RECORD :	ACTUAL	TABLE
Green DOT		

- ACTUAL AND TABLE VALUES DIFFERENCE IS LESS THAN +/-5 KTS ..... ❑

❑

A/C HANDLING BETWEEN FL140&FL100

GMT.....

A/C WEIGHT AT GREEN DOT SPEED

	A/C weight *(ECAM)*	GWF *(AIDS)*	CG *(MCDU FUEL PRED)*
RECORD :			

(A/C WEIGHT) - GWF IS ≤ **5 000** KG (**11 000** LBS)..... ❑

Notes: - FAC GW computation starts below FL 146 provided:
- SPD BRK retracted, Bank Angle < 5°, Stabilized level flight and Vc <240 kt (255 kt for A320)
- Computation is inhibited once flaps full were selected.

- If GWF not available in AIDS, Stabilize at displayed GD for 2 minutes before comparing with the GD table value

ANEMO AT GREEN DOT SPEED

	SYS1 *(AIDS)*	SYS2 *(AIDS)*	SYS3 *(AIDS if Avail)*
AOA			
PITCH			
FPA			
AOA-(PITCH-FPA)			

AOA - (**PITCH-FPA**) IS ≤ **0.5°**..... ❑

Note: **1 Single AOA could differ by max.-0.5/+ 0.7° compared to PITCH-FPA provided the 2 others remain within the above mentioned tolerances.**

IF GREEN DOT SPEED OR AOA VALUES ARE OUT OF ABOVE MENTIONNED TOLERANCES, THEN LOW SPEED TESTS MUST BE CANCELLED

❑

F33. SPEED BRAKE INHIBIT (EXCEPT A318)

GMT.....

ALTITUDE ..... **BETWEEN FL140/FL100**

SPEED ..... **160 KT**

FLAPS ..... **FULL**

L/G ..... **DOWN**

ECAM PAGE ..... **SET TO F/CTL**

SPEED BRAKE ..... **SET SLOWLY AND GRADUALLY TO FULL**

- SPEED BRAKES DO NOT EXTEND ..... ❑

- ECAM **F/CTL SPD BRK DISAGREE** IS TRIGGERED ..... ❑

SPEED BRAKE ..... **RET**

- ECAM **F/CTL SPD BRK DISAGREE** IS CLEARED ..... ❑

IF A321

FLAPS **3**

SPEED BRAKE ..... **SET SLOWLY AND GRADUALLY TO FULL**

- SPEEDBRAKES DO NOT EXTEND ..... ❑

- ECAM **F/CTL SPD BRK DISAGREE** ISTRIGGERED ..... ❑

SPEED BRAKE ..... **RET**

- ECAM **F/CTL SPD BRK DISAGREE** IS CLEARED ..... ❑

ECAM PAGE ..... **SET TO MEMO - CRUISE**

Note: Speed Brakes are available in all slats/flaps configurations for A318

A/C HANDLING BETWEEN FL140&FL100

❑

F34. AUTO FLIGHT SYSTEMS – SIMULATED GO AROUND (CEO)

GMT.....

ADVISE CABIN CREW

ALTITUDE ..... **BETWEEN FL140/FL100**

SPEED **160KT**

FLAPS ..... **3 (2 FOR A321)**

L/G ..... **DOWN**

AP 1 OR AP 2 ..... **ON IN TRACK/FPA MODE**

FD ..... **OFF**

ECAM PAGE ..... **SET TO F/CTL**

SPEED BRAKE ..... **FULL**

- CHECK SPEED BRAKES ARE EXTENDED ..... ❑

THRUST LEVERS ..... **SET TO TOGA**

- AP ENGAGES GO AROUND MODE ..... ❑

IF "*FD ENGAGEMENT IN CROSS BAR AT G/A*" IS ACTIVE (*)

- FD BARS ARE AUTOMATICALLY RESTORED ..... ❑

ELSE TRACK/FPA MODE REMAINS ..... ❑

- SPEED BRAKES RETRACT ..... ❑
- ECAM **F/CTL SPD BRK DISAGREE** IS TRIGGERED ..... ❑

SPEED BRAKE ..... **RETRACT**

- AFS TRACKS MAX (*VAPP, CURRENT SPEED AT TIME OF GO-AROUND INITIATION*) ..... ❑
- A/C PITCH ATTITUDE IS LIMITED TO **18** ° ..... ❑

A/C HANDLING BETWEEN FL140&FL100

❑

F35. AUTO FLIGHT SYSTEMS – SIMULATED GO AROUND (NEO)

ALTITUDE ..... **BETWEEN FL140/FL100**

SPEED **160KT**

FLAPS ..... **3 (2 FOR A321)**

L/G ..... **DOWN**

AP 1 OR AP 2 ..... **ON IN TRACK/FPA MODE**

FD ..... **OFF**

ECAM PAGE ..... **SET TO F/CTL**

SPEED BRAKE ..... **FULL**

- CHECK SPEED BRAKES ARE EXTENDED ..... ❑

THRUST LEVERS ..... **SET TO TOGA**

- AP ENGAGES GO AROUND MODE ..... ❑
- FMA RESTORES IN "**SRS/HDG**" WITH "**NAV**" OR "**SRS/NAV**" MODE ..... ❑

Within 5 sec after TOGA selection

SOFT GO-AROUND (*)

THRUST LEVERS ..... **SET TO FLX/MCT**

- AP ENGAGES SOFT G/A MODE "MAN GA SOFT" ON FMA ..... ❑
- FD BARS ARE AUTOMATICALLY RESTORED ..... ❑
- SPEED BRAKES RETRACT ..... ❑
- ECAM **F/CTL SPD BRK DISAGREE** IS TRIGGERED ..... ❑

SPEED BRAKE ..... **RETRACT**

- AFS TRACKS MAX (*VAPP, CURRENT SPEED AT TIME OF GO-AROUND INITIATION*) ..... ❑
- A/C PITCH ATTITUDE IS LIMITED TO **18** ° ..... ❑

❑

F36. LANDING GEAR RETRACTION

GMT.....

DO NOT EXCEED VLO / VLE

ALTITUDE ..... **BETWEEN FL140/FL100**

SPEED ..... **BELOW VLO, RECOMMENDED 200KT**

FLAPS ..... **AS REQUIRED**

L/G ..... **DOWN**

ECAM PAGE ..... **SET TO WHEEL**

L/G ..... **UP**

Record the landing gear time from command to all landing gear doors closed

- L/G RETRACTION TIME ..... ❑

14 SEC +/- 2

Note: The PTU may temporarily operate during the landing gear retraction cycle
(This PTU operation is not indicated on the ECAM and may last for 8 sec max)

ECAM PAGE ..... **SET TO MEMO - CRUISE**

A/C HANDLING BETWEEN FL140&FL100

❑

F37. LANDING GEAR EMERGENCY

GMT.....

DO NOT EXCEED VLO / VLE

ALTITUDE ..... **BETWEEN FL140/FL100**

SPEED ..... **BELOW VLO, RECOMMENDED 200KT**

FLAPS ..... **AS REQUIRED**

L/G ..... **UP**

ECAM PAGE ..... **SET TO WHEEL**

When below VLO, with **200 kt** recommended:

GRAVITY GEAR EXTN HANDCRANK ..... **PULL AND TURN**

- **3** FULL TURNS (*wait 1 sec between each successive turn*) UNTIL REACHING THE MECHANICAL STOP ..... ❑
- LANDING GEARS DOWN LOCK ..... ❑

When the 3 down lock arrows are illuminated:

L/G LEVER ..... **DOWN**

GRAVITY GEAR EXTN HANDCRANK ..... **TURN BACKWARDS AND RESTOW**

- ALL THE LANDING GEAR DOORS CLOSE WITHIN **3** SEC ..... ❑
- AERODYNAMIC NOISE REVERTS TO NORMAL ..... ❑

L/G ..... **UP**

Notes:
- *L/G DOORS NOT CLOSED ECAM message is triggered if the landing gear doors remain open more than 30 sec due to late hand crank reset*
- *L/G GEAR NOT UPLOCKED ECAM message is triggered if the LDG GEAR is not selected DOWN within 30 sec after unlocking; it remains as long as the gear is not retracted*
- *The landing gear doors are pushed open by the landing gear weight but are not hydraulically locked and consequently increased aerodynamic noise results*
- *Exceeding speed limits may require an aircraft inspection according to AMM*
- *Once the 3rd hand crank has been performed, the three down lock arrows should be illuminated in less than 30 sec.*

❑

F38. APPROACH (AUTOLAND CAT III DUAL)

A318 / A319 / A320 / A321		CEO / NEO	
WIND LIMITS FOR AUTOLAND AND ROLL OUT ***refer to FCOM LIM / AFS / 20 / MAX wind conditions for ILS CAT II or CAT III***			
HEAD WIND :		**Kt**	**MAX CERTIFIED ALTITUDE**
TAIL WIND :		**Kt**	**FT**
CROSS WIND :		**Kt**	

- ACTUAL WIND IS WITHIN PRECEDING LIMITS FOR AUTOLAND ❑

ALTITUDE **AS REQUIRED**

SPEED **AS REQUIRED**

FLAPS **FULL**

AP 1+2 **ON (CAT III DUAL)**

A/THR **ON**

SIGNS **AUTO**

AUTO/BRK **MED**

GND SPLRS **ARMED**

MDA (H) / BARO **AS REQUIRED**

At SLATS extension:

- ECAM STATUS PAGE IS DISPLAYED (*IF STATUS IS NOT NORMAL*) ❑
- CONFIRM STATUS IS AS EXPECTED ❑

AFS

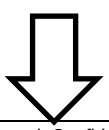
MONITOR THE CAT III DUAL SEQUENCE THROUGHOUT THE APPROACH ❑

VERIFY THE CORRECT AP BEHAVIOR DURING ALL AUTO LAND PHASES ❑

ILS

Check ILS 1 - 2 reception

	Station	Range	Audio Ident	Auto decoding	
ILS 1		❑	❑	❑	❑
ILS 2		❑	❑	❑	❑



❑

AUTOLAND APPROACH

HUD (*)

- CHECK THE HUD FUNCTIONS DURING APPROACH ❑

MARKER

- ON THE RUNWAY IN SERVICE CHECK MARKER RECEPTION (*) ❑

RADIO-ALTIMETER ACCURACY

- COMPARE CM1 AND CM2 RA INDICATION ❑

At RA=2000 ft:

- LDG MEMO is displayed ❑

Note: if the landing gear is not down, the LDG MEMO is displayed at 800ft

AUTO CALL OUT & ALTITUDE DISPLAY

At MDA + 100ft BARO altitude:

- HUNDRED ABOVE IS ANNOUNCED (*) ❑

At MDA BARO altitude:

- MINIMUM IS ANNOUNCED (*) ❑
- PFD ALTITUDE SCALE TURNS AMBER ❑

Record AUTO CALL OUT messages as triggered:

25Hundred	❑	500	❑	100	❑	20	❑
2500	❑	400	❑	50	❑	10	❑
2000	❑	300	❑	40	❑	5	❑
1000	❑	200	❑	30	❑		

- APPLICABLE CALLS ARE ANNOUNCED ❑

TAIL-STRIKE PROTECTION SYMBOLOGY (*)

At RA=400 ft:

- TAIL STRIKE INDICATOR ON BOTH PFD ❑

❑

F39. LANDING

GMT.....

REV ..... **IDLE**

- REV GREEN INDICATED ON E/WD ..... ❑

Note: avoid when possible FULL REV due to the extended RAT (risk of blade damage). However, the use of the full reverse remains in any case at the pilot's discretion.

GROUND SPOILERS ACTUATION

- GROUND SPOILERS EXTEND ..... ❑
- AUTO BRAKE SYSTEM GOES ACTIVE ..... ❑

AUTOBRAKE ACTIVATION

When the MED deceleration rate is reached:

- AUTO/BRK **MED** DECEL LIGHT ILLUMINATES ..... ❑
- BRAKING ACTION IS PROMPT BUT WITHOUT EXCESSIVE CHATTER ..... ❑
- A/C MUST NOT EXCESSIVELY DEVIATE FROM THE INITIAL TRAJECTORY ..... ❑

Override the **AUTO/BRK MED** function by prompt pedal braking

- AUTO/BRK **MED ON** AND DECEL LIGHTS EXTINGUISH ..... ❑

When reaching 70kts:

REV ..... **STOW**

❑

F40. TAXI

GMT.....

BRAKE STATUS RECORD

RUNWAY	…….	WIND	…… / …..

Record the ECAM indicated brake temperature when the heat excursions have stabilized:

	LH		RH	
	BRK 1	BRK 2	BRK 3	BRK 4
Initial value				
Stabilized value				
Max difference between 2 brakes on the same gear	**150 °C**		**150 °C**	
Max difference between L/H and R/H brakes	**200°C**			

- BRAKE TEMPERATURE DISTRIBUTION IS HOMOGENEOUS ..... ❑

Note: be aware of X-wind condition

BRAKE FANS (*)

BRK FAN ..... **ON**

- BRAKES TEMPERATURE DECREASE ..... ❑

Note: after LDG, brake fans selection should be delayed for about 5' min. to allow thermal stabilization

LATEST VALID AFTER LANDING PROCEDURE ..... **PERFORM**

A/C GENERAL

ALL PASSENGER CABIN DOOR SLIDES ..... **DISARM**

- ECAM SD DOOR PAGE REFLECTS THE SLIDES DISARMED CONDITION ..... ❑

Taxi the A/C to the allocated arrival position

❑

POST FLIGHT

F41. NAVIGATION SYSTEMS ACCURACY

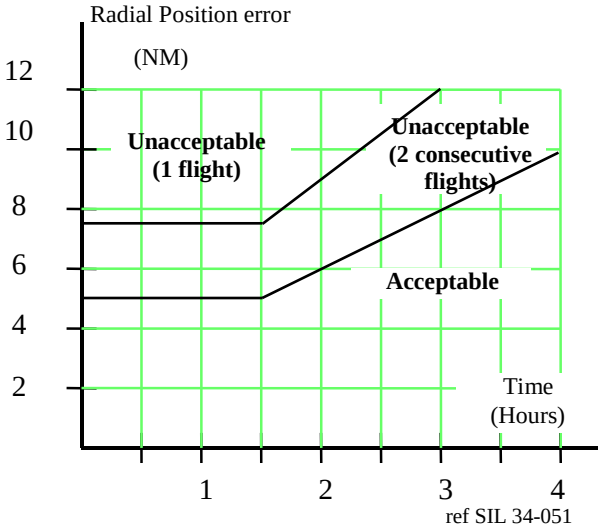
From either FMGC MCDU DATA INDEX record the GPS and POSITION MONITOR data

	POSITION		GS	FIGURE OF MERIT
GPS 1	N/S.....	E/W.....		.....(ft / m)
GPS2	N/S.....	E/W.....		.....(ft / m)

FMGC 1	N/S.....	E/W.....		
FMGC 2	N/S.....	E/W.....		
GPIRS	N/S.....	E/W.....		
MIX IRS	N/S.....	E/W.....		

	NAV	DRIFT	GS	
IRS 1				
IRS 2				
IRS 3				
NAV TIME :	.....	**BLOCK TIME:**	.....	

Notes: *- If FMC position are significantly different from the gate position perform a manual update at arrival position (see flight preparation for coordinates)*
- On aircraft equipped with LITTON 4 MCU ADIRS, the ground speed check must be performed within the 2 minutes following aircraft stop. Ground speed reset to 0 after 2 minutes.



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- THE RADIAL POSITION ERROR IS WITHIN THE ACCEPTABLE LIMITS..... ❑

- THE ADIRS RESIDUAL GROUND SPEED MUST NOT EXCEED 21KT AFTER ONE FLIGHT (15KT ON 2 CONSECUTIVE FLIGHTS)..... ❑

- THE IRS DRIFT MUST NOT EXCEED 2.6NM/HR AFTER 3H NAV TIME AFTER ONE FLIGHT (MONITOR ON CONSECUTIVE FLIGHTS)..... ❑

POST FLIGHT

❑

PART 3 TECHNICAL FLIGHT

ADDITIONAL COCKPIT CHECKS

A1. INTRODUCTION

The ***PART 3 TECHNICAL FLIGHT – ADDITIONAL COCKPIT CHECKS*** lists the additional checks that could be performed in addition to the checks described in **PART 2**.

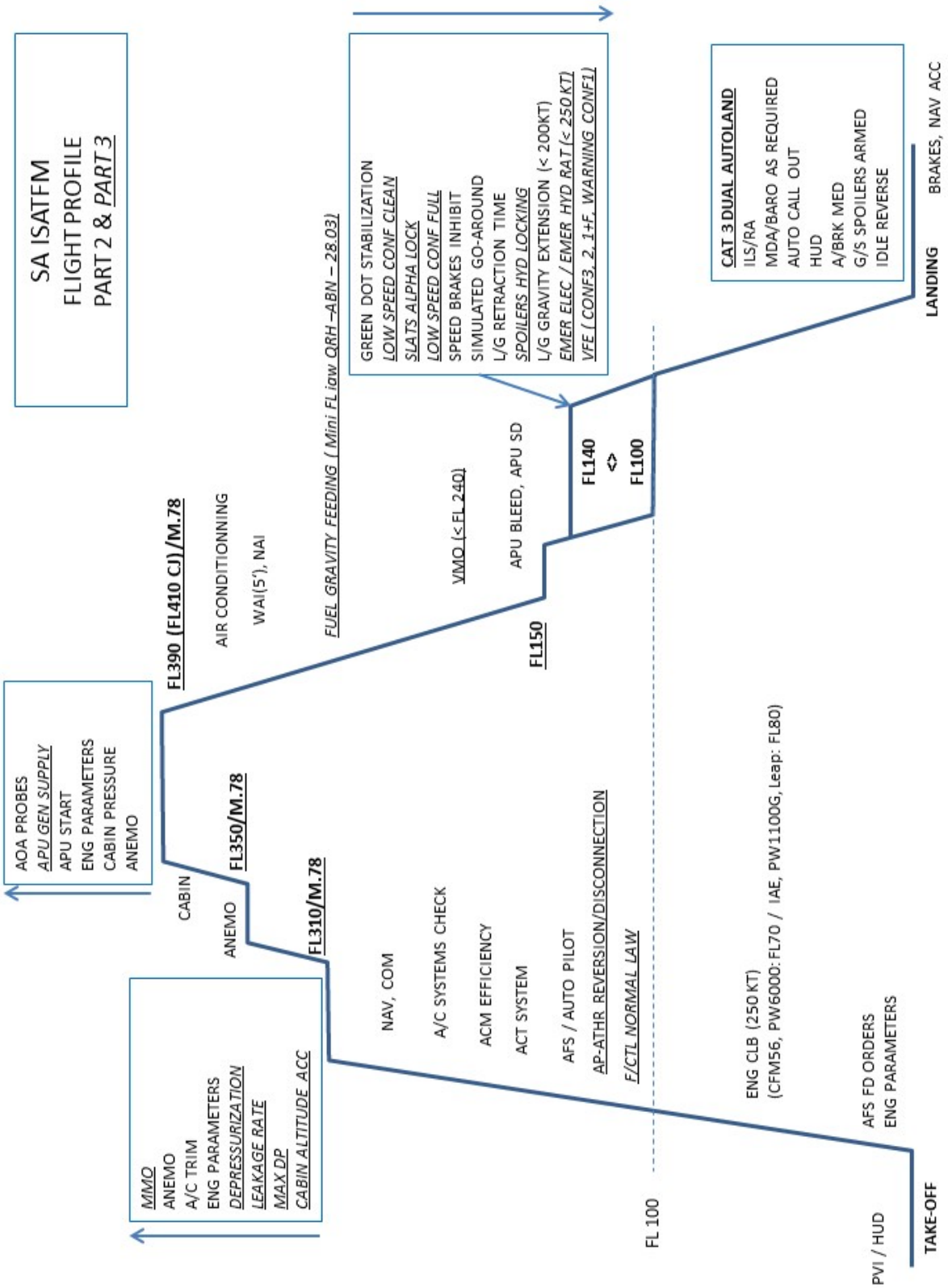
For the checks of PART 3, it is highly recommended to perform specific flight crew training not described in this manual. Details may be found within the Airbus Training Catalogue (Technical flight familiarization training for non-revenue technical flights)

The Flight profile, next page, compiles the technical flight checks of PART 2 and PART 3. Specific PART 3 checks are identified by an underline. These checks (some or all) are only required to be performed following specific maintenance work or other justified reason.

Prior to the flight, if required, the chosen checks of PART 3 (Ax) that will be performed, must be inserted within PART 2 (F*x*) in line with flight profile test order on the following pages (**A2**)

ISATFM PART 2 amended by some procedures of PART 3 will be the inflight document when performing the technical check flight.

A2. FLIGHT PROFILE



A3. TAXI CHECKS

If, for any reason, ground test checks E6 / E8 / E9 have not been performed, we do recommend performing the following ones prior to the flight.

These checks must be performed on a straight taxi track and at low speed (≤ 10 kt). They will be performed after having satisfactorily completed the ones given in F4 (TAXI) of part 2.

A/SKID & N/W STRG ..... **OFF**

FROM CM1 STATION:

HYD ALTERNATE BRAKING (*)

SYMMETRICAL BRAKE INPUT ..... **APPLY AT 1000 PSI MAXIMUM**

- A/C BRAKING IS ACHIEVED WITHOUT CHATTER ..... ❑

ELEC ALTERNATE BRAKING (*)

SYMMETRICAL BRAKE INPUT ..... **APPLY FULL STROKE**

- A/C BRAKING IS ACHIEVED WITHOUT CHATTER ..... ❑
- THE L/R BRAKE PRESSURE IS AUTOMATICALLY LIMITED TO **1000** PSI ..... ❑

REPEAT TEST FROM CM2 STATION ..... ❑

A/SKID & N/W STRG ..... **ON**

ENG 1 – 2 ..... **IDLE**

ENG 1 – 2 REVERSERS ..... **DEPLOY (IDLE)**

- ENGINES 1 – 2 POWER GOES TO IDLE REV ..... ❑
- REV GREEN IS INDICATED ON EWD ..... ❑

ENG 1 – 2 REVERSERS ..... **STOW**

- ENGINES POWER GO BACK TO MIN IDLE ..... ❑
- REV INDICATION IS CLEARED ON EWD WHEN FULLY STOWED ..... ❑

Resume normal A/C taxi as appropriate.

❑

A4. FLIGHT CONTROL AUTHORITY

GMT.....

THIS TEST MUST BE CARRIED OUT OF CLOUDS, WITH NORMAL FLIGHT CONTROL LAWS AND PROTECTION FUNCTIONS FULLY OPERATIVE

ADVISE CABIN CREW

G-LOADS MUST REMAIN WITHIN +2G / +0.5 G

IMMEDIATE A/C RECOVERY MUST BE APPLIED IN THE EVENT OF BANK/PITCH ANGLE PROTECTION LIMITS EXCEEDANCE OR ABNORMAL A/C BEHAVIOUR

ALTITUDE ..... **RECOMMEND BLOCK FL100 TO FL220**

SPEED ..... **250-300 KTS**

FLAPS **0**

L/G ..... **UP**

AP ..... **OFF**

FD ..... **ON**

ECAM PAGE ..... **SET TO F/CTL**

CABIN CREW MEMBERS ARE SAFELY SEATED AND BELTED ..... **CHECK**

WXR ..... **OFF**

LDG LIGHTS ..... **RETRACTED**

ROLL

- BANK ANGLE UP TO **33°** HELD CONSTANT (*UPON SIDE STICK RELEASE*) ..... ❑
- FD **1-2** REMOVED FROM PFD 1-2 FOR BANK ANGLE GREATER THAN **45°** ..... ❑
- ABOVE **33°UP TO 67°** BANK ANGLE DECREASES TO **33°** (*UPON SIDE STICK RELEASE*) ..... ❑
- SPOILERS **2** TO **5** EXTENSION ..... ❑
- BANK ANGLE PROTECTION LIMITS AT ~ **+/- 67°** ..... ❑

CLIMB TO FL310

❑

PITCH & G-LOADS

- PITCH ATTITUDE HELD CONSTANT (*UPON SIDE STICK RELEASE*) ❑

- PITCH UP PROTECTION LIMIT **+30°** ❑

- PITCH DOWN PROTECTION LIMIT **-15°** ❑

ECAM PAGE **SET TO MEMO – CRUISE**

Note:
Pitch and bank limits are static limits. During dynamic maneuvers, the protections can be temporarily overshot (especially in case of full sidestick inputs).This is a normal behavior and, in that case, the test point can be considered as passed.
Furthermore, thrust changes under G-loads should be avoided as much as possible.

❑

A5. AP – A/THR REVERSION / DISCONNECTION

GMT.....

ADVISE CABIN CREW

GLOBAL SPEED PROTECTION

AP ..... **ON**

V/S ..... **SELECT + 6000 FT/MN**

- SPEED DECREASES TO VLS ..... ❑
- V/S REVERSION TO SPEED ..... ❑

AP DISCONNECTION / OVERRIDE

AP1 (/ AP2) ..... **ON**

- AP DISCONNECTION BY CAPT (/ F/O) INSTINCTIVE P/B ..... **CAPT** ❑ **F/O** ❑
- AP OVERRIDE (PITCH AND ROLL) FROM CAPT (/ F/O) SIDESTICK ..... **CAPT** ❑ **F/O** ❑
- AP DISCONNECTION BY AP1 (/ AP2) FCU P/B ..... **AP1** ❑ **AP2** ❑

AP1 TO AP2 SMOOTH CHANGEOVER ..... ❑

A/THR DISCONNECTION

A/THR ..... **ON**

- A/THR DISCONNECTION BY LEFT (/ RIGHT) INSTINCTIVE P/B ..... **LEFT** ❑ **RIGHT** ❑
- A/THR DISCONNECTION WHEN SETTING THR LVR TO IDLE ..... ❑
- A/THR DISCONNECTION BY A/THR FCU P/B ..... ❑

CLIMB TO FL 310

❑

A6. CABIN ALTITUDE ACCURACY

GMT.....

ADVISE CABIN CREW

ALTITUDE ..... **MAXIMUM FL310**

SPEED ..... **AS REQUIRED**

FLAPS **0**

ECAM PAGE ..... **SET TO PRESS**

When the cabin is at the nominal Δ P with CAB V/S = 0

CABIN MAN PRESS ..... **AUTO THEN MAN THEN AUTO**

Record the CAB ALT for SYS1 / 2 and MAN

RECORD:	SYS 1	MAN	SYS 2
CAB ALT(ft)			

- DIFFERENCE BETWEEN AUTO AND MAN MODE DOES NOT EXCEED **+/- 500FT** ..... ❑
- DIFFERENCE BETWEEN SYS1 AND SYS 2 DOES NOT EXCEED **+/- 150FT** ..... ❑
- CAB V/S REMAINS BELOW **+/- 1000FT** BETWEEN SWITCHING MODE SWITCHING ..... ❑

ECAM PAGE ..... **SET TO MEMO - CRUISE**

❑

A7. EXCESSIVE PRESSURE RELIEF

GMT.....

ADVISE CABIN CREW

DO NOT EXCEED ΔP OF 9.0PSI (EXCEPT A320/A319 NEO ACJ)

OR

DO NOT EXCEED ΔP OF 9.6PSI FOR A319/A320 NEO ACJ ONLY

ALTITUDE ..... **MAXIMUM FL310**

SPEED ..... **AS REQUIRED**

FLAPS **0**

ECAM PAGE ..... **SET TO PRESS**

CABIN PRESS MODE SEL ..... **MAN**

MAN V/S CTL ..... **DN** ***(-500 FT/MN CAB V/S)***

- CABIN DIFFERENTIAL PRESSURE (ΔP) INCREASES ..... ❑

When SAFETY VALVE opens ON ECAM SD, start chrono and record

ΔP (PSI)		**8.6 PSI ± 0.4 (EXCEPT A319/A320 NEO ACJ)** **9.3 PSI + 0.3/-0.4 (A319/A320 NEO ACJ)**

❑

- ECAM CAB **PR SAFETY VALVE OPEN** IS TRIGGERED AFTER **1 MIN** ..... ❑

Note: ΔP indication might turn amber at or above 8.5psi (except A320 NEO ACJ).
ΔP needle will turn amber above 9.3psi (A320 NEO ACJ only).

MAN V/S CTL ..... **UP** ***(+ 500 FT/MN CAB V/S)***

- CABIN DIFFERENTIAL PRESSURE (ΔP) DECREASES ..... ❑

At or below ΔP 8.1 psi, with reduced Cab V/S (Less than *500 FT/MN*):

CABIN PRESS MODE SEL ..... **AUTO**

- CPC SYS IN USE RESUMES THE NORMAL CABIN PRESSURE CONTROL ..... ❑

ECAM PAGE ..... **SET TO MEMO - CRUISE**

Note: - Outflow valve closure is quicker when CPC is in AUTO (max speed 10°/s in AUTO, 1°/s in MANUAL).

*- **Urgent recovery preferable by selecting PACKS OFF and reselect PACKS ON at 7.8 PSI***

- Setting back CAB PRESS MODE SEL to AUTO above 8.1psi will result in abnormal high rate recovery.

❑

CRUISE AT FL310

A8. CABIN LEAKAGE RATE & CABIN DEPRESSURIZATION TO 14000FT CAB ALT

GMT.....

ADVISE CABIN CREW

PEOPLE IN CABIN MUST BE SEATED ALL TOGETHER IN A DEDICATED AREA OF THE A/C WITH OXYGEN MASKS OPERATIVE UNDER THE SUPERVISION OF THE CABIN CREW

ALTITUDE ..... **MAXIMUM FL310**

SPEED ..... **AS REQUIRED**

FLAPS **0**

CREW OXYGEN MASKS AND OXYGEN QUANTITY (DOOR PAGE) ..... **CHECK**

CABIN CEILING LIGHTS ..... **DIM**

SIGNS (2) ..... **OFF**

VIDEO (*) ..... **POWERED**

ECAM PAGE ..... **SET TO PRESS**

FWD ISOL VALVE (*) ..... **OFF**

ENG 1 - 2 BLEED ..... **OFF**

PACK 1 - 2 ..... **OFF**

At any ΔP between 7.7 and 7.0 PSI, and when CAB V/S is stabilized, record and validate leakage rate:

CAB V/S (ft/min)		MAX **1000 FT/MIN** (A318) MAX **900 FT/MIN** (A319&A320) MAX **850 FT/MIN** (A321)

❑

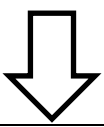
ENG 1 BLEED, THEN ENG 2 BLEED ..... **ON**

-THE ACTUAL CAB V/S RATE DOES NOT SIGNIFICANTLY CHANGE ..... ❑

When CABIN ALTITUDE is above 6700FT

BLOWER - EXTRACT ..... **OVRD**

- CHECK CABIN V/S INCREASES ..... ❑
- EXTRACT VLV IS OPENED (ECAM SD PRESS PAGE) ..... ❑



❑

CRUISE AT FL310

ECAM PAGE ..... **CLR TO MEMO - CRUISE**

- **CAB ALT** ADVISORY APPEARS AT OR ABOVE **8800** FT CABIN ALTITUDE ..... ❑
- **CAB ALT** INDICATION GOES RED AT **9550** FT +/- **100** ..... ❑

When MW and ECAM message CAB PR appears, record:

CAB ALT (ft)		**9550 FT ± 350**

❑

CREW OXYGEN ..... **USE**

- CHECK CORRECT BEHAVIOUR (NORMAL / 100% / OVERPRESSURE MODES) ..... ❑
- CHECK INTEGRATED MICROPHONES (RADIO, INTERPHONE, PUBLIC ADDRESS) ..... ❑

When the ECAM MEMO for the cabin signs appears, record:

CAB ALT (ft)		**11300 FT ± 350**

❑

- CABIN CEILING LIGHTS GO TO BRIGHT (*FOLLOWING CIDS CUSTOMIZATION*) ..... ❑

ABORT TEST IF SYS ON LIGHT OR MASK RELEASE NOT ACHIEVED AT CAB ALT OF 14300FT

When the SYS ON light illuminates, record:

CAB ALT (ft)		**14000 FT +250/-750**

❑

WITHOUT DELAY CABIN PRESSURE RECOVERY (**A10**) ..... **INITIATE**

EXCEPT:

IF **HI-ALT OPERATION AND CHEMICAL PASSENGER OXYGEN SYSTEM**, THEN PROCEED WITH **A8** (**DEPRESS 16000FT CHEMICAL O2**)

OR

IF **GASEOUS PASSENGER OXYGEN** SYSTEM IS INSTALLED, THEN PROCEED WITH **A9** (**DEPRESS 16000FT GASEOUS O2**)

❑

A9. CABIN DEPRESSURIZATION (CHEMICAL OXYGEN SYSTEM 16000FT CAB ALT)

This procedure is applicable for A/C equipped with Chemical Passenger Oxygen system and High Altitude operation modification embodied

It is recommended to perform the HIGH ALT cabin depressurization with minimum required crew and to carry portable oxygen bottles due to safety reasons.

Continue the cabin depressurization to 16000ft Cabin Altitude:

HI ALT (*RED SWITCH GUARD)* ..... **ON**

- **HI ALT** ILLUMINATES, AND "**HI ALT SET**" ECAM MEMO APPEARS ..... ❑

OXYGEN TMR RESET ..... **ON**

- **SYS ON** LIGHT EXTINGUISHES ..... ❑

ABORT TEST IF SYS ON LIGHT OR MASK RELEASE NOT ACHIEVED AT CAB ALT OF 16300FT

When SYS ON light illuminates, record:

CAB ALT (ft)		**16000 FT +250/-750**

❑

WITHOUT DELAY CABIN PRESSURE RECOVERY (**A10**) ..... **INITIATE**

❑

A10. CABIN DEPRESSURIZATION (GASEOUS OXYGEN SYSTEM TO 16000FT CAB ALT)

This procedure is applicable for A/C equipped with Gaseous Passenger Oxygen system modification embodied.

It is recommended to perform the HIGH ALT cabin depressurization with minimum required crew and to carry portable oxygen bottles due to safety reasons.

BLOWER – EXTRACT ..... **NORMAL**

FWD ISOL VALVE (*****) ..... **NORMAL**

PACK 1 ..... **ON**

PACK 2 (**AT STABILIZED CAB V/S**) ..... **ON**

HI ALT (*RED SWITCH GUARD*) ..... **ON**

- **HI ALT** ILLUMINATES, AND "**HI ALT SET**" ECAM MEMO APPEARS ..... ❑

OXYGEN TMR RESET ..... **ON**

(***"ON" LIGHT ILLUMINATES FOR 5SEC***)

Pull some PSU in the cabin to depressurize the gaseous oxygen system

When fully depressurized (can take a couple of minutes),

- **SYS ON** LIGHT EXTINGUISHES ..... ❑

Continue the cabin depressurization to 16000ft:

FWD ISOL VALVE (*****) ..... **OFF**

PACK 1-2 ..... **OFF**

BLOWER - EXTRACT ..... **OVRD**

ABORT TEST IF SYS ON LIGHT OR MASK RELEASE NOT ACHIEVED

AT CAB ALT OF 16300FT

When SYS ON light illuminates, record:

CAB ALT (ft)		**16000 FT +250/-750**	❑

WITHOUT DELAY CABIN PRESSURE RECOVERY (**A10**) ..... **INITIATE**

❑

CRUISE AT FL310

A11. CABIN DEPRESSURIZATION (RECOVERY PROCEDURE)

CONSIDER EMERGENCY DESCENT IN CASE OF UNCONTROLLABLE PRESSURE SYSTEM

ALL A/C:

BLOWER - EXTRACT ..... **NORMAL**

FWD ISOL VALVE (*) ..... **NORMAL**

PACK 1 ..... **ON**

PACK 2 (**AT STABILIZED CAB V/S**) ..... **ON**

- THE INDICATED CAB ALT DECREASES AND BOTH PACK ARE SUPPLIED BY ENGINE BLEED ..... ❑

- CHECK THE COCKPIT DOOR LOCKS PROPERLY ..... ❑

- PUBLIC ADDRESS AUTO ANNOUNCEMENT IS BROADCASTED (*) ..... ❑

- ALL PSU RELEASE TO THE TEST GRIP ..... ❑

- VIDEO PRESENTATION IS CUT AND THE RETRACTABLE MONITORS STOW (*) ..... ❑

When CAB ALT IS BELOW 11300FT

OXYGEN TMR RESET ..... **ON**

- **SYS ON** LIGHT EXTINGUISHES (*CABIN ALTITUDE PERMITTING*) ..... ❑

FOR A/C WITH HIGH ALT OPERATION:

HI ALT ..... **NORMAL**

- **HI ALT** EXTINGUISHES, AND "**HI ALT SET**" ECAM MEMO DISAPPEARS ..... ❑

Note: During cabin pressure recovery, the CAB ALT indication goes green/flashing at 9550ft (+/-100) and green at 8600ft (+/-100)

SIGNS (2) ..... **NORMAL**

CREW OXYGEN ..... **CLOSE FLAPS AND RESET**

❑

A12. OVERSPEED (MMO)

GMT.....

ADVISE CABIN CREW

DO NOT EXCEED M0.84

ALTITUDE **FL310**

SPEED ..... **MMO - 10KT**

HEADING ..... **CROSSWIND**

AP ..... **OFF**

A/THR ..... **OFF**

FD ..... **OFF**

ECAM PAGE ..... **SET TO F/CTL**

AIDS ALPHA CALL-UP (MN) ..... **PREPARE**

ACCELERATE WITH MODERATE ENGINE POWER AT A RATE MAX OF 1KT/SEC

When the Master Warning and ECAM message OVERSPEED appear:

	ADR1 (CAPT)	ADR 2 (F/O)	
MACH MMO OVERSPEED warning *(PFD or AIDS)*			**0.826+0.004/-0.006**

❑

THRUST ..... **IDLE**

SPEED BRAKE ..... **FULL**

- A/C BEHAVIOR REMAINS NORMAL ..... ❑

SPEED BRAKE ..... **RETRACT**

- ALL SPEED BRAKE PANELS RETRACT ..... ❑

Reduce aircraft speed well below MMO barber pole.

ECAM PAGE ..... **SET TO MEMO - CRUISE**

Note: Exceeding the limit may require an aircraft inspection according to AMM.

❑

CRUISE AT FL310

A13. ELECTRICAL POWER SUPPLY FROM THE APU GEN

GMT.....

ADVISE CABIN CREW

ALTITUDE ..... **FL390 or FL410**

SPEED **M0.78**

APU ..... **AVAIL**

ECAM PAGE ..... **SET TO ELEC**

GEN 1 ..... **OFF**

- APU GEN TAKES OVER GEN 1 SUPPLY ..... ❑

When the APU is thermally stabilized

ECAM PAGE ..... **SET TO APU**

APU GEN LOAD (%)		
APU GEN VOLTAGE (V)		
APU GEN FREQUENCY (Hz)		
N (%)		**101** % +/- 1 FOR HWL36-300 **100** % +/- 1 FOR HWL131-9 AND APIC ❑
EGT (°C)		MAX **663** °C UP TO ISA + 35 °C FOR HWL36-300 MAX **600** °C UP TO ISA + 35 °C FOR HWL131-9 MAX **660** °C UP TO ISA + 35 °C FOR APIC ❑

Note: HWL131-9 = Honeywell 131-9
HWL36-300 = Honeywell 36-300 (Garrett) - APU start limited to FL 390
APIC = APS3200
APIC = PWC

THE PRECEDING DATA ARE RECORDED FOR INFORMATION ONLY

ECAM PAGE ..... **SET TO ELEC**

GEN 1 ..... **ON**

GEN 2 ..... **OFF**

- APU GEN TAKES OVER GEN2 SUPPLY ..... ❑

GEN 2 ..... **ON**

ECAM PAGE ..... **SET TO MEMO - CRUISE**

❑

A14. FUEL GRAVITY FEED

GMT.....

THIS TEST CAN BE DONE AT ANY TIME ABOVE FL300, IF THE FLIGHT TIME AT THE CURRENT FL OR AT A HIGHER FL HAS EXCEEDED 30 MIN.

OTHERWISE

REFER TO QRH ABN - /FUEL / GRAVITY FUEL FEEDING

ALTITUDE..... **CHECK MINIMA iaw QRH ABN -/FUEL / GRAVITY FUEL FEEDING**

SPEED..... **AS REQUIRED**

ECAM PAGE..... **SET TO FUEL**

LH FUEL TANK PUMPS..... **OFF**

ENG1 THROTTLE (**SLAM ACCEL/DECEL**)..... **IDLE TO MCT THEN MCT TO IDLE**

- ENGINE CONTINUES TO OPERATE NORMALLY..... ❑

LH FUEL TANK PUMPS..... **ON**

RH FUEL TANK PUMPS..... **OFF**

ENG2 THROTTLE (**SLAM ACCEL/DECEL**)..... **IDLE TO MCT THEN MCT TO IDLE**

- ENGINE CONTINUES TO OPERATE NORMALLY..... ❑

RH FUEL TANK PUMPS..... **ON**

FUEL BALANCED..... **CHECK**

DESCENT

❑

A15. OVERSPEED (VMO)

GMT.....

ADVISE CABIN CREW

DO NOT EXCEED 365KTS

ALTITUDE ..... **WHEN SUITABLE BELOW FL246**

SPEED **VMO-20KT**

HEADING ..... **CROSSWIND**

AP ..... **OFF**

A/THR ..... **OFF**

FD ..... **OFF**

ECAM PAGE ..... **SET TO F/CTL**

AIDS ALPHA CALL-UP (CAS) ..... **PREPARE**

Accelerate the A/C with a V/S of about -1000ft/min and the required engine power in order not to exceed 1kt/sec:

When the Master Warning and ECAM message OVERSPEED appear:

	ADR1 (CAPT)	ADR 2 (F/O)	
IAS VMO OVERSPEED Warning *(PFD or AIDS)*			**354 KT +6 / -4**

❑

THRUST ..... **IDLE**

SPEED BRAKE ..... **FULL**

- A/C BEHAVIOR REMAINS NORMAL ..... ❑

SPEED BRAKE ..... **RETRACT**

- ALL SPEED BRAKE PANELS RETRACT ..... ❑

Reduce aircraft speed well below VMO barber pole.

ECAM PAGE ..... **SET TO MEMO - CRUISE**

- Exceeding the limit may require an aircraft inspection according to AMM.

❑

DESCENT

A16. LOW SPEED - CONF CLEAN

LOW SPEED CHECKS GENERAL

These tests have to be carried out clear of cloud and turbulence with normal control laws and protection functions operating. Once the operation of the alpha floor has been noted, it should be inhibited and the steady idle thrust deceleration resumed. The test must be discontinued in the event of airspeed reducing to **V** α_{max} -4kt or aural stall warning or abnormal aircraft behavior.

THE BLOCK ALTITUDE FL100 TO FL140 IS RECOMMENDED FOR LOW SPEED ACTIVITIES. IN CASE OF CIRCUMSTANCES WHERE A HIGHER ALTITUDE IS REQUIRED (WEATHER, TERRAIN) AIRBUS STRONGLY ADVISE TO PERFORM THE CHECKS BELOW AN ALTITUDE WHERE MACH EFFECT IS NOT IMPORTANT.

AIRBUS SUGGESTS THAT LOW SPEED ACTIVITIES MUST NOT BE PERFORMED AT ALTITUDES ABOVE FL200

The following published low speed data are calculated and valid when the low speed checks are performed at FL 135 with the CG at 25 %

Deviation effect:

FL: Not above FL200

CG: VLS - auto trim stop and minimum stabilized speed figures: -/+ 1kt for +/- 5% CG

Others figures; no effect

LOW SPEED - CONF CLEAN (RECORD SHEET A318)

GMT.....

ADVISE CABIN CREW

ABORT TEST AT $V\alpha_{max}$ - 4 KT

ALTITUDE ..... **BETWEEN FL140/FL100**
SPEED ..... **GD**
FLAPS **0**
L/G ..... **UP**
AP & A/THR ..... **OFF**

THRUST ..... **IDLE**
DECELERATE ..... **1KT/SEC TO A-FLOOR**

When A-floor triggered

A/THR ..... **OFF**
DECELERATE ..... **1KT/SEC TO V α_{max}**

RECOVERY

SIDESTICK ..... **PUSH TO REDUCE AOA**
THRUST LEVERS ..... **ADVANCE GENTLY**
SPEED ..... **ACCELERATE TO VLS+5KT**

	VLS	$V\alpha_{prot}$	V α_{max}	V α_{max} - 4 KT
TABLE VALUE				**Safety speed**
ACTUAL VALUE				

x1000 kg	A318 CFM56			A318 PW6000			x1000 lbs
	VLS	$V\alpha_{prot}$	V α_{max}	VLS	$V\alpha_{prot}$	V α_{max}	
42,0	159	153	133	159	155	134	92,6
44,0	163	157	136	163	159	138	97,0
46,0	167	161	139	167	163	141	101,4
48,0	170	164	142	170	166	144	105,8
50,0	174	168	145	174	170	147	110,2
52,0	177	172	148	177	174	150	114,6
54,0	180	175	151	180	177	153	119,0
56,0	184	179	154	184	180	157	123,4
58,0	187	180	157	187	183	160	127,9
60,0	190	183	160	190	186	163	132,3
+ / -	**4**	**4**	**4**	**4**	**4**	**4**	+ / -

LOW SPEED - CONF CLEAN (RECORD SHEET A319 CEO)

GMT.....

ADVISE CABIN CREW

ABORT TEST AT $V\alpha_{max}$ - 4 KT

ALTITUDE ..... **BETWEEN FL140/FL100**
SPEED ..... **GD**
FLAPS **0**
L/G ..... **UP**
AP & A/THR ..... **OFF**

THR ..... **IDLE**
DECELERATE ..... **1KT/SEC TO A-FLOOR**

When A-floor triggered

A/THR ..... **OFF**
DECELERATE ..... **1KT/SEC TO V α_{max}**

RECOVERY

SIDESTICK ..... **PUSH TO REDUCE AOA**
THRUST LEVERS ..... **ADVANCE GENTLY**
SPEED ..... **ACCELERATE TO VLS+5KT**

	VLS	$V\alpha_{prot}$	V α_{max}	V α_{max} - 4 KT Safety speed
TABLE VALUE				
ACTUAL VALUE				

x1000 kg	A319 CFM56			A319 IAE V2500			x1000 lbs
	VLS	$V\alpha_{prot}$	V α_{max}	VLS	$V\alpha_{prot}$	V α_{max}	
44,0	167	154	133	165	154	133	97,0
46,0	171	158	136	169	157	136	101,4
48,0	174	162	139	172	161	139	105,8
50,0	178	166	142	176	165	142	110,2
52,0	182	170	145	179	169	145	114,6
54,0	185	174	148	183	173	148	119,0
56,0	188	177	151	186	177	151	123,4
58,0	192	181	154	189	181	154	127,9
60,0	195	185	157	193	184	157	132,3
62,0	198	188	160	196	188	160	136,7
+ / -	**4**	**4**	**4**	**4**	**4**	**4**	+ / -

LOW SPEED - CONF CLEAN (RECORD SHEET A319 NEO)

GMT.....

ADVISE CABIN CREW

ABORT TEST AT $V\alpha_{max}$ - 4 KT

ALTITUDE ..... **BETWEEN FL140/FL100**
SPEED ..... **GD**
FLAPS **0**
L/G ..... **UP**
AP & A/THR ..... **OFF**

THR ..... **IDLE**
DECELERATE ..... **1KT/SEC TO A-FLOOR**

When A-floor triggered

A/THR ..... **OFF**
DECELERATE ..... **1KT/SEC TO V α_{max}**

RECOVERY

SIDESTICK ..... **PUSH TO REDUCE AOA**
THRUST LEVERS ..... **ADVANCE GENTLY**
SPEED ..... **ACCELERATE TO VLS+5KT**

	VLS	$V\alpha_{prot}$	V α_{max}	V α_{max} - 4 KT Safety speed
TABLE VALUE				
ACTUAL VALUE				

x1000 kg	A319 PW1100G			A319 CFM LEAP-1A			x1000 lbs
	VLS	$V\alpha_{prot}$	V α_{max}	VLS	$V\alpha_{prot}$	V α_{max}	
44,0	164	150	140	164	150	140	97,0
46,0	168	154	144	168	154	144	101,4
48,0	172	157	147	172	157	147	105,8
50,0	175	161	150	175	161	150	110,2
52,0	179	165	153	179	165	153	114,6
54,0	182	169	156	182	169	156	119,0
56,0	185	173	159	185	173	159	123,4
58,0	188	176	162	188	176	162	127,9
60,0	192	180	165	192	180	165	132,3
62,0	195	183	168	195	183	168	136,7
+ / -	**4**	**4**	**4**	**4**	**4**	**4**	+ / -

LOW SPEED - CONF CLEAN (RECORD SHEET A320 CEO)

GMT.....

ADVISE CABIN CREW

ABORT TEST AT $V\alpha_{max}$ - 4 KT

ALTITUDE ..... **BETWEEN FL140/FL100**
SPEED ..... **GD**
FLAPS **0**
L/G ..... **UP**
AP & A/THR ..... **OFF**

THRUST ..... **IDLE**
DECELERATE ..... **1KT/SEC TO A-FLOOR**

When A-floor triggered

A/THR ..... **OFF**
DECELERATE ..... **1KT/SEC TO V α_{max}**

RECOVERY

SIDESTICK ..... **PUSH TO REDUCE AOA**
THRUST LEVERS ..... **ADVANCE GENTLY**
SPEED ..... **ACCELERATE TO VLS+5KT**

	VLS	$V\alpha_{prot}$	V α_{max}	V α_{max} - 4 KT
TABLE VALUE				**Safety speed**
ACTUAL VALUE				

x1000 kg	A320 CFM56			A320 IAE V2500			x1000 lbs
	VLS	$V\alpha_{prot}$	V α_{max}	VLS	$V\alpha_{prot}$	V α_{max}	
44,0	163	152	133	160	150	132	97,0
46,0	167	155	136	164	153	135	101,4
48,0	171	158	139	167	156	138	105,8
50,0	174	162	142	171	160	141	110,2
52,0	178	166	145	174	164	144	114,6
54,0	181	170	148	177	168	147	119,0
56,0	184	174	151	181	172	150	123,4
58,0	188	178	154	184	175	153	127,9
60,0	191	181	157	187	179	156	132,3
62,0	194	185	160	191	183	159	136,7
64,0	197	189	163	195	187	162	141,1
+ / -	**4**	**4**	**4**	**4**	**4**	**4**	+ / -

LOW SPEED - CONF CLEAN (RECORD SHEET A320 NEO)

GMT.....

ADVISE CABIN CREW

ABORT TEST AT $V\alpha_{max}$ - 4 KT

ALTITUDE ..... **BETWEEN FL140/FL100**
SPEED ..... **GD**
FLAPS **0**
L/G ..... **UP**
AP & A/THR ..... **OFF**

THR ..... **IDLE**
DECELERATE ..... **1KT/SEC TO A-FLOOR**

When A-floor triggered

A/THR ..... **OFF**
DECELERATE ..... **1KT/SEC TO V α_{max}**

RECOVERY

SIDESTICK ..... **PUSH TO REDUCE AOA**
THRUST LEVERS ..... **ADVANCE GENTLY**
SPEED ..... **ACCELERATE TO VLS+5KT**

	VLS	$V\alpha_{prot}$	V α_{max}	V α_{max} - 4 KT
TABLE VALUE				**Safety speed**
ACTUAL VALUE				

x1000 kg	A320 PW1100G A320 CFM LEAP			x1000 lbs
	VLS	$V\alpha_{prot}$	V α_{max}	
44,0	163	150	140	97,0
46,0	167	153	143	101,4
48,0	170	157	146	105,8
50,0	174	161	150	110,2
52,0	177	165	153	114,6
54,0	181	169	156	119,0
56,0	184	173	159	123,4
58,0	187	176	162	127,9
60,0	190	180	165	132,3
62,0	194	184	168	136,7
64,0	197	188	171	141,1
+ / -	**4**	**4**	**4**	+ / -

LOW SPEED - CONF CLEAN (RECORD SHEET A321 CEO)

GMT.....

ADVISE CABIN CREW

ABORT TEST AT Vα_{max} - 4 KT

ALTITUDE ..... **BETWEEN FL140/FL100**
SPEED ..... **GD**
FLAPS **0**
L/G ..... **UP**
AP & A/THR ..... **OFF**

THRUST ..... **IDLE**
DECELERATE ..... **1KT/SEC TO A-FLOOR**

When A-floor triggered

A/THR ..... **OFF**
DECELERATE ..... **1KT/SEC TO V α_{max}**

RECOVERY

SIDESTICK ..... **PUSH TO REDUCE AOA**
THRUST LEVERS ..... **ADVANCE GENTLY**
SPEED ..... **ACCELERATE TO VLS+5KT**

	VLS	Vα_{prot}	V α_{max}	V α_{max} - 4 KT
TABLE VALUE				**Safety speed**
ACTUAL VALUE				

x1000 kg	321 CFM56			321 IAE V2500			x1000 lbs
	VLS	Vα_{prot}	V α_{max}	VLS	V α_{max}	V α_{max}	
50,0	172	156	141	172	156	140	110,2
52,0	175	159	144	175	160	143	114,6
54,0	178	163	147	178	164	146	119,0
56,0	182	166	150	182	167	149	123,4
58,0	185	170	153	185	171	152	127,9
60,0	188	173	156	188	175	155	132,3
62,0	191	177	159	191	178	158	136,7
64,0	194	180	161	194	182	161	141,1
66,0	197	183	164	197	185	164	145,5
68,0	200	187	167	200	188	167	149,9
70,0	203	190	170	203	192	170	154,3
72,0	206	194	172	206	195	173	158,7
74,0	209	197	175	209	199	176	163,1
76,0	212	200	177	212	202	179	167,6
+ / -	**4**	**4**	**4**	**4**	**4**	**4**	+ / -

LOW SPEED - CONF CLEAN (RECORD SHEET A321 NEO)

GMT.....

ADVISE CABIN CREW

ABORT TEST AT $V\alpha_{max}$ - 4 KT

ALTITUDE ..... **BETWEEN FL140/FL100**
SPEED ..... **GD**
FLAPS **0**
L/G ..... **UP**
AP & A/THR ..... **OFF**

THR ..... **IDLE**
DECELERATE ..... **1KT/SEC TO A-FLOOR**

When A-floor triggered

A/THR ..... **OFF**
DECELERATE ..... **1KT/SEC TO V α_{max}**

RECOVERY

SIDESTICK ..... **PUSH TO REDUCE AOA**
THRUST LEVERS ..... **ADVANCE GENTLY**
SPEED ..... **ACCELERATE TO VLS+5KT**

	VLS	$V\alpha_{prot}$	V α_{max}	V α_{max} - 4 KT Safety speed
TABLE VALUE				
ACTUAL VALUE				

x1000 kg	A321 PW 1100G A321 CFM LEAP			x1000 lbs
	VLS	$V\alpha_{prot}$	V α_{max}	
50,0	169	155	144	110,2
52,0	173	158	147	114,6
54,0	176	162	150	119,0
56,0	179	165	153	123,4
58,0	184	169	156	127,9
60,0	187	172	159	132,3
62,0	190	176	163	136,7
64,0	193	179	166	141,1
66,0	196	182	169	145,5
68,0	199	186	172	149,9
70,0	202	189	175	154,3
72,0	205	192	178	158,7
74,0	208	196	181	163,1
76,0	210	199	184	167,6
+ / -	**4**	**4**	**4**	+ / -

A17. SLATS ALPHA LOCK PROTECTION

GMT.....

ALTITUDE ..... **BETWEEN FL140/FL100**
SPEED ..... **VLS+5KT**
FLAPS **1**
L/G ..... **UP**
AP & A/THR ..... **OFF**

SPEED ..... **REDUCE**

When following conditions are fulfilled:

A318/A319/A320	**A321**
AOA>**8.6° OR** IAS<**148KT**	AOA>**8.0° OR** IAS<**165KT**

FLAPS **0**

- SLATS MUST NOT RETRACT ..... ❑
- **A-LOCK** PULSING MESSAGE APPEARS ..... ❑

❑

A18. LOW SPEED - CONF FULL

LOW SPEED CHECKS GENERAL

These tests have to be carried out clear of cloud and turbulence with normal control laws and protection functions operating. Once the operation of the alpha floor has been noted, it should be inhibited and the steady idle thrust deceleration resumed. The test must be discontinued in the event of airspeed reducing to **V** α_{max} -4kt or aural stall warning or abnormal aircraft behavior.

The following published low speed data are calculated and valid when the low speed checks are performed at FL 135 with the CG at 25 %

THE BLOCK ALTITUDE FL100 TO FL140 IS RECOMMENDED FOR LOW SPEED ACTIVITIES. IN CASE OF CIRCUMSTANCES WHERE A HIGHER ALTITUDE IS REQUIRED (WEATHER, TERRAIN) AIRBUS STRONGLY ADVISE TO PERFORM THE CHECKS BELOW AN ALTITUDE WHERE MACH EFFECT IS NOT IMPORTANT.

AIRBUS SUGGESTS THAT LOW SPEED ACTIVITIES SHOULD NOT BE PERFORMED AT ALTITUDES ABOVE FL200

Deviation effect:

FL: No effect

CG: VLS - auto trim stop and minimum stabilized speed figures: -/+ **1**kt for +/- **5**% CG

Others figures; no effect

LOW SPEED - CONF FULL (RECORD SHEET A318)

GMT.....

ADVISE CABIN CREW

ABORT TEST AT $V\alpha_{max}$ - 4 KT

ALTITUDE ..... **BETWEEN FL140/FL100**
SPEED **160KT**
FLAPS ..... **FULL**
L/G ..... **DN**
AP & A/THR ..... **OFF**

THR ..... **IDLE**
DECELERATE ..... **1KT/SEC TO A-FLOOR**

When A-floor triggered

A/THR ..... **OFF**
DECELERATE ..... **1KT/SEC TO V α_{max}**

RECOVERY

SIDESTICK ..... **PUSH TO REDUCE AOA**
THRUST LEVERS ..... **ADVANCE GENTLY**
SPEED ..... **ACCELERATE TO VLS+5KT**

	VLS	$V\alpha_{prot}$	V α_{max}	V α_{max} - 4 KT
TABLE VALUE				**Safety speed**
ACTUAL VALUE				

x1000 kg	A318 CFM56			A318 PW6000			x1000 lbs
	VLS	$V\alpha_{prot}$	V α_{max}	VLS	$V\alpha_{prot}$	V α_{max}	
42,0	111	95	90	111	96	91	92,6
44,0	111	98	92	111	98	93	97,0
46,0	111	100	95	111	101	95	101,4
48,0	111	102	97	111	103	97	105,8
50,0	113	104	99	113	105	99	110,2
52,0	115	106	101	115	107	101	114,6
54,0	118	109	103	118	109	103	119,0
56,0	120	111	105	120	111	105	123,4
58,0	122	113	107	122	113	107	127,9
60,0	124	115	109	124	115	109	132,3
+ / -	**3**	**4**	**4**	**3**	**4**	**4**	+ / -

LOW SPEED - CONF FULL (RECORD SHEET A319 CEO)

GMT.....

ADVISE CABIN CREW

ABORT TEST AT $V\alpha_{max}$ - 4 KT

ALTITUDE ..... **BETWEEN FL140/FL100**
SPEED **160KT**
FLAPS ..... **FULL**
L/G ..... **DN**
AP & A/THR ..... **OFF**

THRUST ..... **IDLE**
DECELERATE ..... **1KT/SEC TO A-FLOOR**

When A-floor triggered

A/THR ..... **OFF**
DECELERATE ..... **1KT/SEC TO V α_{max}**

RECOVERY

SIDESTICK ..... **PUSH TO REDUCE AOA**
THRUST LEVERS ..... **ADVANCE GENTLY**
SPEED ..... **ACCELERATE TO VLS+5KT**

	VLS	$V\alpha_{prot}$	V α_{max}	V α_{max} - 4 KT
TABLE VALUE				**Safety speed**
ACTUAL VALUE				

x1000 kg	A319 CFM56			A319 IAE V2500			x1000 lbs
	VLS	$V\alpha_{prot}$	V α_{max}	VLS	$V\alpha_{prot}$	V α_{max}	
44,0	108	98	93	107	98	93	97,0
46,0	110	100	95	110	100	95	101,4
48,0	113	102	97	112	102	97	105,8
50,0	115	104	99	114	104	99	110,2
52,0	117	106	101	117	106	101	114,6
54,0	119	108	103	119	108	103	119,0
56,0	122	110	105	121	110	105	123,4
58,0	124	112	107	123	112	107	127,9
60,0	126	114	109	125	114	109	132,3
62,0	128	116	111	127	116	111	136,7
+ / -	**3**	**4**	**4**	**3**	**4**	**4**	+ / -

LOW SPEED - CONF FULL (RECORD SHEET A319 NEO)

GMT.....

ADVISE CABIN CREW

ABORT TEST AT $V\alpha_{max}$ - 4 KT

ALTITUDE ..... **BETWEEN FL140/FL100**
SPEED **160KT**
FLAPS ..... **FULL**
L/G ..... **DN**
AP & A/THR ..... **OFF**

THRUST ..... **IDLE**
DECELERATE ..... **1KT/SEC TO A-FLOOR**

When A-floor triggered

A/THR ..... **OFF**
DECELERATE ..... **1KT/SEC TO V α_{max}**

RECOVERY

SIDESTICK ..... **PUSH TO REDUCE AOA**
THRUST LEVERS ..... **ADVANCE GENTLY**
SPEED ..... **ACCELERATE TO VLS+5KT**

	VLS	$V\alpha_{prot}$	V α_{max}	V α_{max} - 4 KT
TABLE VALUE				**Safety speed**
ACTUAL VALUE				

x1000 kg	A319 PW1100G			A319 CFM LEAP-1A			x1000 lbs
	VLS	$V\alpha_{prot}$	V α_{max}	VLS	$V\alpha_{prot}$	V α_{max}	
44,0	119	98	93	120	98	93	97,0
46,0	119	100	95	120	100	95	101,4
48,0	119	102	97	120	102	97	105,8
50,0	119	104	99	120	104	99	110,2
52,0	119	106	101	120	106	101	114,6
54,0	119	108	103	120	108	103	119,0
56,0	121	110	105	121	110	105	123,4
58,0	123	112	107	123	112	107	127,9
60,0	125	114	109	125	114	109	132,3
62,0	127	116	111	127	116	111	136,7
+ / -	**3**	**4**	**4**	**3**	**4**	**4**	+ / -

LOW SPEED - CONF FULL (RECORD SHEET A320 CEO)

GMT.....

ADVISE CABIN CREW

ABORT TEST AT $V\alpha_{max}$ - 4 KT

ALTITUDE ..... **BETWEEN FL140/FL100**
SPEED **160KT**
FLAPS ..... **FULL**
L/G ..... **DN**
AP & A/THR ..... **OFF**

THRUST ..... **IDLE**
DECELERATE ..... **1KT/SEC TO A-FLOOR**

When A-floor triggered

A/THR ..... **OFF**
DECELERATE ..... **1KT/SEC TO V α_{max}**

RECOVERY

SIDESTICK ..... **PUSH TO REDUCE AOA**
THRUST LEVERS ..... **ADVANCE GENTLY**
SPEED ..... **ACCELERATE TO VLS+5KT**

	VLS	$V\alpha_{prot}$	V α_{max}	V α_{max} - 4 KT
TABLE VALUE				**Safety speed**
ACTUAL VALUE				

x1000 kg	A320 CFM56			(LIP)	A320 IAE V2500			x1000 lbs
	VLS	$V\alpha_{prot}$	V α_{max}	VLS	VLS	$V\alpha_{prot}$	V α_{max}	
44,0	111	101	95	105	111	100	096	97,0
46,0	113	103	97	108	113	102	098	101,4
48,0	116	105	99	110	116	104	100	105,8
50,0	118	107	101	112	118	106	102	110,2
52,0	121	109	103	114	120	108	104	114,6
54,0	123	111	105	117	123	110	106	119,0
56,0	125	113	107	119	125	112	108	123,4
58,0	127	115	109	121	127	114	110	127,9
60,0	130	117	111	123	129	116	112	132,3
62,0	132	119	113	125	131	118	114	136,7
64,0	134	121	115	127	134	120	116	141,1
+ / -	**3**	**4**	**4**	**3**	**3**	**4**	**4**	+ / -

LOW SPEED - CONF FULL (RECORD SHEET A320 NEO)

GMT.....

ADVISE CABIN CREW

ABORT TEST AT $V\alpha_{max}$ - 4 KT

ALTITUDE ..... **BETWEEN FL140/FL100**
SPEED **160KT**
FLAPS ..... **FULL**
L/G ..... **DN**
AP & A/THR ..... **OFF**

THRUST ..... **IDLE**
DECELERATE ..... **1KT/SEC TO A-FLOOR**

When A-floor triggered

A/THR ..... **OFF**
DECELERATE ..... **1KT/SEC TO V α_{max}**

RECOVERY

SIDESTICK ..... **PUSH TO REDUCE AOA**
THRUST LEVERS ..... **ADVANCE GENTLY**
SPEED ..... **ACCELERATE TO VLS+5KT**

	VLS	$V\alpha_{prot}$	V α_{max}	V α_{max} - 4 KT
TABLE VALUE				**Safety speed**
ACTUAL VALUE				

x1000 kg	A320 PW 1100G A320 CFM LEAP			x1000 lbs
	VLS	$V\alpha_{prot}$	V α_{max}	
44,0	115	97	92	97,0
46,0	115	100	94	101,4
48,0	115	102	96	105,8
50,0	115	104	98	110,2
52,0	116	106	100	114,6
54,0	118	108	102	119,0
56,0	120	110	104	123,4
58,0	122	112	106	127,9
60,0	124	114	108	132,3
62,0	126	116	110	136,7
64,0	128	118	112	141,1
+ / -	**3**	**4**	**4**	+ / -

LOW SPEED - CONF FULL (RECORD SHEET A321 CEO)

GMT.....

ADVISE CABIN CREW

ABORT TEST AT $V\alpha_{max}$ - 4 KT

ALTITUDE ..... **BETWEEN FL140/FL100**
SPEED **160KT**
FLAPS ..... **FULL**
L/G ..... **DN**
AP & A/THR ..... **OFF**

THR ..... **IDLE**
DECELERATE ..... **1KT/SEC TO A-FLOOR**

When A-floor triggered

A/THR ..... **OFF**
DECELERATE ..... **1KT/SEC TO V α_{max}**

RECOVERY

SIDESTICK ..... **PUSH TO REDUCE AOA**
THRUST LEVERS ..... **ADVANCE GENTLY**
SPEED ..... **ACCELERATE TO VLS+5KT**

	VLS	$V\alpha_{prot}$	V α_{max}	V α_{max} - 4 KT Safety speed
TABLE VALUE				
ACTUAL VALUE				

x1000 kg	321 CFM56				(LIP)	321 IAE V2500				x1000 lbs
	VLS	$V\alpha_{prot}$	V α_{max} ELAC<L101	V α_{max} ELAC≥L101	VLS	VLS	$V\alpha_{prot}$	V α_{max} ELAC<L101	V α_{max} ELAC≥L101	
50,0	114	100	94	96	111	114	100	95	97	110,2
52,0	116	102	96	98	113	116	102	97	99	114,6
54,0	118	104	98	100	115	119	104	99	100	119,0
56,0	121	106	100	102	117	121	106	101	103	123,4
58,0	123	108	102	104	119	123	108	103	105	127,9
60,0	125	110	104	106	121	125	110	105	107	132,3
62,0	127	112	106	108	123	127	112	107	109	136,7
64,0	129	114	107	109	125	129	114	108	110	141,1
66,0	131	116	109	111	127	131	116	110	112	145,5
68,0	133	117	111	113	129	133	118	112	114	149,9
70,0	135	119	112	114	131	135	120	114	115	154,3
72,0	137	121	114	116	133	137	122	116	117	158,7
74,0	139	123	115	117	135	139	124	118	119	163,1
76,0	141	125	117	119	137	141	126	120	121	167,6
+ / -	**3**	**4**	**4**	**4**	**3**	**3**	**4**	**4**	**4**	+ / -

LOW SPEED - CONF FULL (RECORD SHEET A321 NEO)

GMT.....

ADVISE CABIN CREW

ABORT TEST AT $V\alpha_{max}$ - 4 KT

ALTITUDE ..... **BETWEEN FL140/FL100**
SPEED **160KT**
FLAPS ..... **FULL**
L/G ..... **DN**
AP & A/THR ..... **OFF**

THRUST ..... **IDLE**
DECELERATE ..... **1KT/SEC TO A-FLOOR**

When A-floor triggered

A/THR ..... **OFF**
DECELERATE ..... **1KT/SEC TO V α_{max}**

RECOVERY

SIDESTICK ..... **PUSH TO REDUCE AOA**
THRUST LEVERS ..... **ADVANCE GENTLY**
SPEED ..... **ACCELERATE TO VLS+5KT**

	VLS	$V\alpha_{prot}$	V α_{max}	V α_{max} - 4 KT
TABLE VALUE				**Safety speed**
ACTUAL VALUE				

x1000 kg	A321 PW 1100G A321 CFM LEAP			x1000 lbs
	VLS	$V\alpha_{prot}$	V α_{max}	
50,0	116	96	93	110,2
52,0	116	98	95	114,6
54,0	116	100	97	119,0
56,0	116	102	99	123,4
58,0	116	103	100	127,9
60,0	118	105	102	132,3
62,0	120	107	104	136,7
64,0	122	109	106	141,1
66,0	124	111	107	145,5
68,0	126	112	109	149,9
70,0	128	114	111	154,3
72,0	130	116	112	158,7
74,0	132	117	114	163,1
76,0	133	119	115	167,6
+ / -	**3**	**4**	**4**	+ / -

A19. WING SPOILERS HYDRAULIC LOCKING (PTU INHIBITION NOT ACTIVE)

GMT.....

ADVISE CABIN CREW

ALTITUDE ..... **BETWEEN FL140/FL100**
SPEED ..... **AS REQUIRED**
FLAPS **3**
L/G ..... **UP**
ECAM PAGE ..... **SET TO HYD**

Fly the A/C straight and level without any aileron input

GREEN ENG1 PUMP ..... **OFF**
- PTU OPERATES (*GREEN* ← *YELLOW*) ..... ❑
PTU ..... **OFF**
- CHECK HYDR. PRESS GOES BELOW 200PSI ..... ❑
- DEPRESSURIZED WING SPOILERS **1** AND **5** REMAIN RETRACTED ..... ❑
GREEN ENG 1 PUMP ..... **ON**

YELLOW ENG 2 PUMP ..... **OFF**
- CHECK HYDR. PRESS GOES BELOW 200PSI ..... ❑
- DEPRESSURIZED WING SPOILERS **2** AND **4** REMAIN RETRACTED ..... ❑
YELLOW ENG 2 PUMP ..... **ON**
PTU ..... **AUTO**
YELLOW ENG 2 PUMP ..... **OFF**
- PTU OPERATES (*GREEN* → *YELLOW*) ..... ❑
YELLOW ENG 2 PUMP ..... **ON**

BLUE ELEC PUMP ..... **OFF**
- CHECK HYDR. PRESS GOES BELOW 200PSI ..... ❑
- DEPRESSURIZED WING SPOILERS **3** REMAIN RETRACTED ..... ❑
BLUE ELEC PUMP ..... **ON**

❑

A20. WING SPOILERS HYDRAULIC LOCKING (PTU INHIBITION ACTIVATED)

GMT.....

ADVISE CABIN CREW

ALTITUDE ..... **BETWEEN FL140/FL100**
SPEED ..... **AS REQUIRED**
FLAPS **3**
L/G ..... **UP**
ECAM PAGE ..... **SET TO HYD**

Fly the A/C straight and level without any aileron input

GREEN ENG1 PUMP ..... **OFF**
- PTU OPERATES (*GREEN ← YELLOW*) ..... ❑
  PTU ..... **OFF**

After Green hydraulic pressure is below 1450PSI, wait 10 seconds

PTU ..... **AUTO**
- PTU DOES NOT OPERATE (*GREEN ←YELLOW*) ..... ❑
- **FAULT** ON PTU P/B IS ILLUMINATED AND PTU TRANSFER LINE IN AMBER ..... ❑
- CHECK HYDR. PRESS GOES BELOW 200PSI ..... ❑
- DEPRESSURIZED WING SPOILERS **1** AND **5** REMAIN RETRACTED ..... ❑

GREEN ENG 1 PUMP ..... **ON**
- **FAULT** IN PTU P/B EXTINGUISHES

Within 30 seconds the PTU transfer line indicated STBY Green

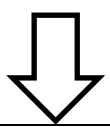
YELLOW ENG 2 PUMP ..... **OFF**
- PTU OPERATES (*GREEN → YELLOW*) ..... ❑

PTU ..... **OFF**

After Yellow hydraulic pressure is below 1450PSI, wait 10 seconds

PTU ..... **AUTO**
- PTU DOES NOT OPERATE (*GREEN → YELLOW*) ..... ❑
- **FAULT** IN PTU P/B IS ILLUMINATED AND PTU TRANSFER LINE IN AMBER ..... ❑
- CHECK HYDR. PRESS GOES BELOW 200PSI ..... ❑
- DEPRESSURIZED WING SPOILERS **2** AND **4** REMAIN RETRACTED ..... ❑

YELLOW ENG 2 PUMP ..... **ON**
- **FAULT** IN PTU P/B EXTINGUISHES ..... ❑



❑

Within 30 seconds the PTU transfer line indicated STBY Green

BLUE ELEC PUMP ..... **OFF**

- CHECK HYD PRESS GOES BELOW **200** PSI ..... ❑
- DEPRESSURIZED WING SPOILERS **3** REMAIN RETRACTED ..... ❑

BLUE ELEC PUMP ..... **ON**

❑

A21. HYDRAULIC - ELECTRIC EMERGENCY

GMT.....

ADVISE CABIN CREW
DO NOT PERFORM THE TEST UNTIL 20 MINUTES FROM DESTINATION

ALTITUDE ..... **BETWEEN FL140/FL100**
SPEED ..... **BELOW 250KT**
FLAPS ..... **AS REQUIRED**
L/G ..... **UP**
FUEL X-FEED ..... **CLOSED**
ECAM PAGE ..... **SET TO HYD**

BLUE ELEC PUMP ..... **OFF**

When the BLUE pressure is below 200psi:
ECAM PAGE ..... **SET TO ELEC**
C/B **Z25** & **Z26** (**EMER GEN AUTO 1-2**) ..... **PULL**

Within less than 10 sec the CSM/G goes valid:
- AC/DC ESS BUS ARE SUPPLIED BY THE CSM/G ..... ❑
- **RAT OUT** MEMO MESSAGE APPEARS ..... ❑
- RAT SYMBOL GOES FULL GREEN ..... ❑
- BLUE HYDRAULIC PRESSURE IS AVAILABLE ..... ❑

C/B **Z25** & **Z26** ..... **PUSH**

RECORD:	EMER GEN	
VOLTAGE (V)		**115** V ± 5
FREQUENCY (Hz)		**400** HZ ± 5

❑

RAT EFFICIENCY CHECK

FLAPS ..... **FULL**
L/G ..... **DN**

When passing 138 kt, record:

BLUE HYD PRESS (**PSI**)		**2400** PSI ± 200

❑

❑

A/C HANDLING BETWEEN FL140&FL100

- BLUE COLLECTOR PRESSURE REMAINS AVAILABLE BUT BRIEF AND RECOVERED PRESSURE DROPS ARE POSSIBLE DURING ABRUPT FLIGHT CONTROL INPUTS ❑
BLUE ELEC PUMP ..... **ON**

Note: due to the abnormal hydraulic system configuration (CSM/G supplied by the RAT and the BLUE hyd. pump) the BLUE hyd. pressure can be random between 2200/3000 psi as long as the CSM/G is in line.

ORIGINAL EMERGENCY ELECTRIC LOGIC (A320 ONLY)

At next landing gears unlock:

- CSM/G STOPS OPERATING ..... ❑
- NORMAL AC/DC ELECTRICAL SUPPLY AND DISTRIBUTION ARE RESTORED ..... ❑

IMPROVED EMERGENCY ELECTRIC LOGIC (A318 • A319 • A321 • A320 *)

When the A/C speed slowed to below 100kt after landing:

- CSM/G STOPS OPERATING ..... ❑
- NORMAL AC/DC ELECTRICAL SUPPLY AND DISTRIBUTION ARE RESTORED ..... ❑

❑

A22. HYDRAULIC – ELECTRIC EMERGENCY (ALTERNATIVE PROCEDURE WHEN NO TECHNICAL OCCUPANT ON CM3)

GMT.....

ADVISE CABIN CREW
DO NOT PERFORM THE TEST UNTIL 20 MINUTES FROM DESTINATION

ALTITUDE ..... **BETWEEN FL140/FL100**
SPEED ..... **BELOW 250KT**
FLAPS ..... **AS REQUIRED**
L/G ..... **UP**
FUEL X-FEED ..... **CLOSED**
ECAM PAGE ..... **SET TO HYD**
BLUE ELEC PUMP ..... **OFF**

EMER HYDRAULIC

When the BLUE pressure is below 200psi
RAT MAN ON ..... **PRESS**
- **RAT OUT** MEMO MESSAGE APPEARS ..... ❑
- RAT SYMBOL GOES FULL GREEN ..... ❑
- BLUE HYDRAULIC PRESSURE IS AVAILABLE ..... ❑

EMER ELEC

ECAM PAGE ..... **SET TO ELEC**
RAT&EMER GEN MAN ON ..... **PRESS**
- **EMER GEN** MEMO MESSAGE APPEARS ..... ❑

RECORD:	EMER GEN	
VOLTAGE (V)		**115** V ± 5
FREQUENCY (Hz)		**400** HZ ± 5

❑

RAT EFFICIENCY CHECK

FLAPS ..... **FULL**
L/G ..... **DN**

When passing 138 kt, record:

BLUE HYD PRESS (**PSI**)		**2400** PSI ± 200

❑

❑

A/C HANDLING BETWEEN FL140&FL100

- BLUE COLLECTOR PRESSURE REMAINS AVAILABLE BUT BRIEF AND RECOVERED PRESSURE DROPS ARE POSSIBLE DURING ABRUPT FLIGHT CONTROL INPUTS ❑
BLUE ELEC PUMP ..... **ON**

Note: due to the abnormal hydraulic system configuration (CSM/G supplied by the RAT and the BLUE hyd. pump) the BLUE hyd. pressure can be random between 2200/3000 psi as long as the CSM/G is in line.

ORIGINAL EMERGENCY ELECTRIC LOGIC (A320 ONLY)

At next landing gears unlock:

- CSM/G STOPS OPERATING ..... ❑
- NORMAL AC/DC ELECTRICAL SUPPLY AND DISTRIBUTION ARE RESTORED ..... ❑

IMPROVED EMERGENCY ELECTRIC LOGIC (A318 • A319 • A321 • A320 *)

When the A/C speed slowed to below 100kt after landing:

- CSM/G STOPS OPERATING ..... ❑
- NORMAL AC/DC ELECTRICAL SUPPLY AND DISTRIBUTION ARE RESTORED ..... ❑

❑

A23. OVERSPEED (*VFE*)

GMT.....

DO NOT EXCEED VFE+10KT

DO NOT EXCEED 1.5G ABOVE VFE

ALTITUDE ..... **BETWEEN FL140/FL100**
SPEED ..... **AS REQUIRED**
FLAPS **3**
L/G ..... **UP**
A/P ..... **OFF**
ACCELERATE ..... **1KT/SEC TO VFE**

	A318/319/320 CEO A320 NEO	A321 CEO	A321NEO A321 NX
CONF 3	**185**	**195**	

❑

FLAPS **2**

	A318/319/320	A321 CEO	A321NEO A321 NX
CONF 2	**200**	**215**	

❑

SPEED ..... **BELOW 205 KT**
FLAPS **1**

	A318/319/320 A321CEO A320 NEO	A321 CEO WV	A321NEO	A321NX
CONF 1+F	**215**	**225**		
AUTO RETRACTION	**210**			
CONF 1	**230**	**235**	**238**	**243**
CONF 1 OVERSPEED WARNING	**234± 3**	**239 ±3**	**242 ±3**	**247 ±3**

❑ ❑ ❑ ❑

Note: A321CEO WV= Weight Variant WV01, WV02, WV10, WV11

FLAPS **0**
ALL BARBER POLE IN ACCORDANCE WITH PLACARD ..... ❑

***Note:* Exceeding the limit may require an aircraft inspection according to AMM**

❑

A/C HANDLING BETWEEN FL140&FL100

PART 4 - TECHNICAL FLIGHT COMPLETION CERTIFICATE

MSN : .....

A/C TYPE : .....

The undersigned hereby certifies for use by WHOM IT MAY CONCERN:

1. The completion of the IN SERVICE AIRCRAFT TECHNICAL FLIGHT MANUAL test schedule with the exception of the following test items:

PART 1 GROUND CHECKS	PART 2/3 FLIGHT

2. The reporting of all defects noticed during the flight for entry into the Aircraft Technical Logbook or Quality Logbook as appropriate.

NAME: ……..

SIGN: ..... Date: ..... Station: .....

❑

ANNEX

HIGH SPEED TAXI

GMT.....

ADVISE CABIN CREW
RAM AIR TURBINE STOWED
NO LOOSE OBJECTS IN CABIN
L/G SAFETY PINS REMOVED
REVERSERS AVAILABLE

A/C GENERAL

Prepare the A/C for a normal departure following the current A/C PREPARATION procedure.

DURING LOW SPEED TAXI

A/C STEERING

- CM1 STEERING HANDLE ..... ❑
- CM1 RUDDER PEDALS ..... ❑
- CM2 STEERING HANDLE ..... ❑
- CM2 RUDDER PEDALS ..... ❑

NORMAL BRAKING

- CM1 NORMAL BRAKING ..... ❑
- CM2 NORMAL BRAKING ..... ❑

ALTERNATE BRAKING WITHOUT A/SKID

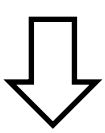
A/SKID & N/W STRG ..... **OFF**
- CM1 ALTERNATE BRAKING ..... ❑
- CM2 ALTERNATE BRAKING ..... ❑

A/SKID & N/W STRG ..... **ON**

ENGINE REVERSE

ENG 1- 2 REV ..... **IDLE**
- CORRECT DEPLOYMENT ..... ❑

ENG 1- 2 REV ..... **STOW**
- CORRECT STOWING ..... ❑



❑

HIGH SPEED TAXI

BEFORE HIGH SPEED TAXI

BRAKES TEMP LOWER THAN **150**°C ..... **CHECK**

LATEST VALID BEFORE TAKE OFF PROCEDURE ..... **PERFORM**

FLAPS **2**

T.O. PITCH TRIM ..... **SET**

GROUND SPOILERS ..... **ARMED**

AUTO/BRK ..... **MAX**

HIGH SPEED TAXI

Estimate the IAS for RTO corresponding to a ground speed of about 100kt:

RUNWAY	……	WIND	…… / …...	IAS FOR RTO	……

Note: Ground speed at rejection must be above 72kts.
IAS should remain below T/O speeds.

Apply moderate engine power whilst holding the A/C firmly on the pedal brakes

- CHECK SYMMETRICAL ENGINE ACCEL TO **50**% N1 (**CFM/PW**) OR **1.1** EPR (**IAE**) ..... ❑

ENG THRUST ..... **TOGA**

When reaching the estimated IAS for RTO or 100kt Ground speed:

ENG THRUST ..... **IDLE/NO REVERSE**

- GROUND SPOILERS EXTEND ..... ❑
- AUTO BRAKE SYSTEM ACTIVATE AND BRAKING ACTION IS PROMPTS BUT WITHOUT EXCESSIVE CHATTER ..... ❑

When the MAX deceleration rate is reached:

- AUTO/BRK MAX **DECEL** LIGHT ILLUMINATES ..... ❑
- A/C MUST NOT EXCESSIVELY DEVIATE FROM THE INITIAL TRAJECTORY ..... ❑

FOR ANY ABNORMAL BEHAVIOUR, DISCONNECT A/BRAKE AND APPLY MAX REV

❑

HIGH SPEED TAXI

At about 50kt ground speed:

AUTO/BRK ..... **OVERRIDE**

- AUTO/BRK MAX **ON** AND THE **DECEL** LIGHTS EXTINGUISH ..... ❑

Continue to slow the A/C by smooth and symmetrical pedal braking down to controlled taxi speed but avoid riding the brakes.

BRAKE STATUS RECORD

RECORD THE BRAKE TEMPERATURE WHEN THE HEAT EXCURSIONS HAVE STABILIZED:

LH		RH	
BRK 1	BRK 2	BRK 3	BRK 4

BRAKE FANS (*)

BRK FAN ..... **ON**

- BRAKE TEMPERATURE DECREASE ..... ❑

BRK FAN ..... **OFF**

Note: After RTO, brake fans selection should be delayed for about 5 minutes to allow thermal stabilization

HIGH SPEED TAXI

❑