

Attachment 15

To Operations/Human Performance Group Factual Report

DCA11IA040

Cockpit Preparation - Captain

COCKPIT PREPARATION - CAPTAIN

Action:

- Airplane maintenance status Check
 The Captain must:
 - Confirm correct maintenance documents are on board and reviewed in accordance with the Maintenance/Fueling/Loading chapter of the FOM.
 - Have a thorough understanding of the maintenance status of the airplane and the potential effects any DF or CF items will have on the operation of the airplane.
 - Ensure the crew is briefed as appropriate.
 This status check may not be delegated.
- Observers audio entertainment switch On/off
 The OBS AUDIO ENT switch should normally be ON.
- GPWS terrain switch (Airbus configuration) Verify on
- Recorder ground control switch On
- CVR test button Push and hold
 Test by placing the RCDR GND CTL switch to ON (energizes the system). Push and hold the CVR TEST button until the low frequency signal is heard through the loudspeakers. The loudspeakers do not need to be turned on to hear this signal. The PARKING BRAKE handle must be ON.
- Seat belts switch Off
- No smoking selector On
- Emergency exit light selector Arm
- Annunciator light selector Test
 Place the ANN LT selector to TEST and visually verify all cockpit annunciator lights illuminate (including the CKPT DOOR CONT lights on the aft overhead panel), and all liquid crystal displays (LCDs) display 8s.

CAUTION: *There are some electrical failures that will fail all cockpit lighting except the right dome light. Depending on time of day and ambient lighting, the dome light may be the best source of cockpit lighting.*

- Dome light switch As required
- Wing anti-ice switch Off
- Engine anti-ice switches Off
- Probe/window heat switch Auto
- Cabin pressure landing elevation selector Auto

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| ■ ECAM PRESS page | Check |
| Select the ECAM PRESS page and verify LDG ELEV AUTO is displayed. The destination field elevation may not be correctly displayed until takeoff is initiated. The vent inlet and extract valves may appear amber with no malfunction when the temperature is close to the valve opening or closing threshold. | |
| ■ APU bleed switch | As required |
| If external conditioned ground air is connected and potable water pressure is desired, turn both pack switches off before turning the APU BLEED switch on. | |
| ■ Crossbleed selector | Auto |
| ■ Pack flow selector | As required |
| Select LO if less than 115 passengers are expected onboard, HI if abnormally hot and humid conditions exist, and NORM for all other conditions. | |
| ■ Engine generator switches | On |
| ■ Battery charge current | Check |
| Select the ECAM ELEC page. Select BAT 1 and 2 switches to OFF and then back to AUTO. After 10 seconds, the battery charging current must be below 60 amps and decreasing. If not, contact Maintenance. | |
| ■ Fuel pump switches | On |
| ■ Fuel mode selector | Auto |
| ■ Engine 1 and 2 fire test switches | Push |
| Observe the following: | |
| <ul style="list-style-type: none"> • Engine FIRE 1 (2) switch illuminates • SQUIB and DISCH lights illuminate • MASTER WARN lights flash • Continuous repetitive chime (CRC) sounds • ECAM <u>ENG FIRE</u> warning activates • Engine FIRE light illuminates on the control pedestal | |
| ■ APU fire test switch | Push |
| Observe the following indications: | |
| <ul style="list-style-type: none"> • APU FIRE switch illuminates • SQUIB and DISCH lights illuminate • MASTER WARN lights flash • CRC sounds • ECAM <u>APU FIRE</u> warning activates | |
| ■ Audio switching selector | Normal |



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- Overhead maintenance panel Check
Verify all lights are extinguished.
- Observer's audio control panel Set
Ensure the VHF 1 reception knob is released out, the volume is set to mid-level, and all other reception knobs are off.
- Observer's RMP Set
Ensure the RMP is on and the SEL light is not illuminated.
- (A320) Aft cargo heat selector Mid range
- Cargo smoke test button Push and hold for 3 seconds
The cargo smoke detectors are tested in sequence. Observe the following:
 - Several cargo smoke ECAMs may appear
 - SMOKE lights illuminate twice with associated smoke ECAMs
 - DISCH lights illuminate
- Barometric reference Set
- Flight director button On
- ILS/LS button As required
- EFIS control panel As required
The recommended settings for departure are ARC or ROSE NAV with a 10 NM range. Other settings may be used as necessary, depending on the departure clearance, TCAS, and weather considerations.
- VOR/ADF selectors As required

■ FCU Check

After FMGC initialization, ensure the FCU is set as follows:

- Speed/Mach window: Dashes
- Heading/Track window:
 - Verify dashes are displayed for a NAV departure and verify the lateral column of FMA indicates NAV is armed **or**
 - Set heading in accordance with planned SID or planned runway heading to disarm NAV mode and verify the lateral column of FMA is blank.
- HDG-V/S / TRK-FPA button: Select HDG-V/S
- Altitude window: Set initial altitude or expected altitude

■ Oxygen mask and microphone Test

Although identified as an every flight item, the oxygen mask and microphone test is not required on subsequent flights if the pilot stays on the same airplane. The check is performed without removing the mask from the compartment. Prior to testing the mask, ensure the other pilot's INT reception knob is off and verify the following:

■ Loudspeaker On

■ Audio control panel Set

Ensure the INT reception knob is on and the INT/RAD switch is selected to INT.

■ Press to test and reset slide lever Push and hold

Observe the flow indicator turns yellow momentarily, then turns black indicating the regulator is leak tight.

■ Regulator emergency/press to test selector Press momentarily

Verify the sound of oxygen flow across the mask microphone; observe the flow indicator turns yellow.

■ Press to test and reset slide lever Release

Verify the flow indicator is black and all oxygen flow ceases.

■ Regulator emergency/press to test selector Press momentarily

Verify the flow indicator remains black, indicating no oxygen flow.

Note: *The final step should be performed every time the mask is stowed to verify that the mask is properly stowed and no oxygen is flowing.*

■ ECAM door page Check

Verify the REGUL LO PR message is not displayed. This check should be accomplished after all masks have been checked to ensure the low pressure valve is open. Residual pressure in the line between the low pressure valve and the masks may be sufficient to accomplish a mask test with the valve closed.

- Audio control panel Set
Return the INT/RAD switch to the neutral position and return the other pilot's INT reception knob to its original position.
- Oxygen mask Set
 - N/100% lever Verify 100%
 - Container doors Verify closed
- Cockpit sliding window Close and lock
Check that the red unlocking button is fully popped out and the window does not pull open.
- PFD and ND brightness As required
Ensure the outer ND brightness knob is turned up so that the EGPWS and radar displays will be visible.
- Terrain system switch (United configuration) Verify on
- PFD Check
Verify the PFD is on the left display and no flags are present. Also verify IAS, FMA, initial target altitude, VSI, altimeter setting, and attitude are correct, and that heading agrees with the ND, DDRMI, and standby compass.

Note: *The altimeters should read position elevation plus 10 feet AGL. If an altimeter error is suspected, check the accuracy at a known elevation point on the airport. If the altimeters do not read within a tolerance of 25 feet or if they do not agree with each other within 20 feet, maintenance action is required. (This does not apply to the standby altimeter.)*
- ND Check
Verify the ND is on the right display and no flags are present.
- Standby airspeed indicator Check
The standby airspeed indicator should read less than 60 KIAS.
Four bugs should remain grouped together at the top of the indicator. If any bugs are missing, a deferral is required.
- Standby altimeter Check
The standby altimeter should read within ± 300 feet of actual elevation (the altimeter vibrator is inoperative on the ground).
Four bugs should remain grouped together at the top of the altimeter. If any bugs are missing, a deferral is required.
- Standby attitude indicator Erect
The standby attitude indicator should be erect with no flag.
- TERR ON ND (or TERR) switch As desired
- Antiskid and nose wheel steering switch On

- Clock Check/set

Verify the clock time and date agree with the UTC time and date. Proper time and date settings ensure accurate navigation functions and recordings of maintenance data.

Note: *ACARS/ATSU time is updated by referencing the clock. ACARS does not use external sources for time updates.*

See the Flight Instruments, Displays chapter for information on setting the clock.
- Switching panel selectors. Normal
- ECAM warning/caution messages Recall

Push the RCL key for more than 3 seconds to recall any warning or caution messages that have been cleared by the CLR key or cancelled by the EMER CANC key. If none, NORMAL appears on the upper ECAM memo.
- ECAM status page Check

Push the STS key. If there are no status messages, NORMAL is displayed for 5 seconds on the upper ECAM memo. If there are status messages after the IRSs are aligned:

 - Determine if they affect dispatch and require maintenance action.
 - Verify that any fault messages (Class I) and MAINT (Class II) messages are compatible with the MRD. All other Class I and II messages must be deferred or cleared prior to Dispatch.

Note: *MAINT (Class II) messages are not flight critical; however, they must be cleared/deferred prior to dispatch. The display of MAINT messages is inhibited after engine start.*
- RMP Set

The RMP should be on and the green NAV light off. Normally, VHF 1 is used for ATC communications and VHF 2 for company, ramp, ATIS, etc. Both pilots should use their respective RMPs to tune frequencies for both radios. VHF 3 is devoted to ACARS/ATSU.
- Audio control panel As required

Note: *On VHF 1, in the high frequency band (e.g., 135.97), there may be an increase in background noise due to electrical interference on the ground or in flight; use VHF 2 if necessary. A maintenance report is not required.*
- Weather radar Off

Verify gain is in AUTO position and the image selector is in WX/TURB.
- PWS switch Off
- Speed brake lever Retract, disarm

Verify the SPEED BRK lever is in the RET position and down.

- Cockpit door open light Verify on
Confirms the cockpit door locking system is powered.
- Gravity gear extension handle Stowed
- Passenger address system Check
Check clarity, volume, and operation of handset.

CAUTION: *The only confirmation that the parking brake is set is an indication of brake pressure on the BRAKES and ACCU PRESS indicator.*

- Parking brake handle On/off
The brake accumulator is normally charged to 3200 PSI. Each brake reset will decrease the pressure by 200–300 PSI. If the pressure drops below 2000 PSI (6 o'clock position on the gauge), recharge the accumulator. Ensure good pressure on the brakes by reference to the brake pressure indications.

Note: *The parking brake should be set if the ramp is icy, or if either wind speed or gusts of 40 knots or greater are anticipated.*

If the parking brake is ON:

Confirm the parking brake is set.

If the parking brake is OFF:

If the parking brake is released due to hot brakes, ensure the PARK BRK handle is ON and confirm the parking brake is set prior to accomplishing the Before Start Checklist.

- Thrust levers Idle
- Flight manual and FOM revisions Review
Revisions will be announced via POSBD. If not previously reviewed, review any changes applicable to the current flight segment.