

AIRBUS



A320 FAMILY

Main FCOM / QRH / FCTM Changes

May 2022

Main FCOM / QRH / FCTM Changes Included from May 2022

The main FCOM / QRH / FCTM changes described in this document will be available in the Operator FCOM / QRH / FCTM manuals, based on the Operator's revision cycle.

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1. GPS Interferences - Supplementary Procedures

1.1. Effect on the Manuals

- FCOM
 - Introduction of the *Procedures / Normal Procedures / Supplementary Procedures / GPS Interferences*.

1.2. Summary of the Modifications

The number of reports related to events of interferences on the GPS signal during the operations increased. This new procedure aims to provide some recommendations to the flight crew, to better manage the operations affected by GPS interferences.

The supplementary procedure for GPS Interferences provides:

- A reminder of the main cockpit effects that may appear during the GPS interferences
- A way to identify the possible interferences on the GPS signal, and some high level recommendations
- The operational recommendations to mitigate several impacts of the GPS interferences when:
 - GPS interferences are expected (e.g. via NOTAM), or
 - Flight crew encounters unexpected GPS interferences during the flight.

2. TCAS Warning - Resolution Advisory - Memory Item

2.1. Effect on the Manuals

- FCOM
 - Creation of the *Procedures / Abnormal and Emergency Procedures / SURV / [MEM] TCAS Warning - Traffic Advisory*
 - Update of the *Procedures / Abnormal and Emergency Procedures / SURV / [MEM] TCAS Warning - Resolution Advisory*.
- FCTM
 - Update of the *Aircraft Systems / TCAS / Operating Techniques*.

2.2. Summary of the Modifications

The [MEM] TCAS WARNINGS procedure is split in two separate procedures [MEM] TCAS CAUTION - TRAFFIC ADVISORY and [MEM] TCAS WARNING - RESOLUTION ADVISORY.

Revision of the management of CLIMB RA during the final approach in CONF 3 or FULL that includes the following:

- The instruction to perform a go-around is extended to the cases when the AP/FD TCAS mode is available, in order to:
 - Ensure the nominal performance required by the CLIMB RA order in all conditions, and to avoid a possible situation of low energy and high aerodynamic drag

- Keep the flight crew in a known situation when clear of conflict (go-around during the final approach)
- Standardize the maneuver for the aircraft not equipped with the AP/FD TCAS mode.
- The addition of information on AP/FD guidance during the go-around, for flight crew awareness
- The addition of the vertical speed monitoring during the go-around, in order to check that the vertical speed remains out of the red area of the vertical speed scale
- The addition of exclusive conditional bullets in order to clearly establish the difference between the actions to be performed in the case of a CLIMB RA during approach in CONF 3 or FULL, and in the case of other RA.

Layout enhancement of the [MEM] TCAS WARNINGS procedure:

- Use of the “challenge-response” format
- Addition of surrounding boxes, in order to easily identify memory items
- Addition of an introduction note and a caution, in order to highlight the requirement to always follow RA orders.

Note: The structural changes in the Documentary Unit lead to a large number of Automatic Highlights (that start by “Documentation update:....”). The main reasons for change are provided in the Authoring Highlights and are summarized above.

3. Fuel Leak Procedure

3.1. Effect on the Manuals

- FCTM
 - Update of the *Procedures / Abnormal and Emergency Procedures / FUEL / Fuel Leak*.

3.2. Summary of the Modifications

This update highlights the risk of fire when there is a fuel leak at engine/pylon level.

The thrust reversers should not be used when there is a fuel leak, because this may result in a fuel spray on hot surfaces.

4. L/G Gravity Extension Procedure

4.1. Effect on the Manuals

- FCOM
 - Update of *Procedures / Abnormal and Emergency Procedures / L/G / [QRH] L/G GRAVITY EXTENSION*.
- QRH
 - Update of *Abnormal and Emergency Procedures/ L/G / L/G GRAVITY EXTENSION*.

4.2. Summary of the Modifications

The **L/G GEAR NOT DOWNLOCKED** alert takes into account different types of failures of the landing gear extension system. The ECAM procedure associated with this alert requests the flight crew to recycle the landing gear once.

Regardless of the root cause of the failure, additional recycling attempts may significantly enhance the good performance of the procedure. This may enable the pressurized extension of the landing gear before the gravity extension is performed. Up to five recycling attempts may be required to ensure a successful landing gear extension in some situations.

Therefore, in addition to the first recycling attempt, included in the **L/G GEAR NOT DOWNLOCKED** procedure, additional attempts are introduced at the beginning of the [QRH] L/G GRAVITY EXTENSION procedure.

5. Reset Procedure of the CIDS Smoke Detection Function

5.1. Effect on the Manuals

- FCOM
 - Update of *Procedures / Abnormal and Emergency Procedures / [RESET] SYSTEM RESET / System Reset Table.*
- QRH
 - Update of *Abnormal and Emergency Procedures / [RESET] SYSTEM RESET / System Reset Table.*

5.2. Summary of the Modifications

The reset time of the Smoke Detection Function (SDF) of the CIDS is corrected from 4 minutes to 1 minute. As a result, the reset of the CIDS-SDF in flight is now authorized.

6. Speed Decay during Cruise - Operational Recommendation

6.1. Effect on the Manuals

- FCTM
 - Update of *Procedures / Normal Procedures / SOP / Cruise / Speed Decay during Cruise / Operational Recommendation.*

6.2. Summary of the Modifications

Addition of a note about the effect of the OP DES mode on the thrust, in order to increase the flight crew awareness of the energy recovery.

7. Flight with Landing Gear Down

7.1. Effect on the Manuals

- FCOM
 - Update of *Procedures / Normal Procedures / Supplementary Procedures / Landing Gear / Flight with Landing Gear Down.*

7.2. Summary of the Modifications

Update of the section of the procedure related to the management of an engine failure, in order to:

- Add the information about the specific speed to be used for final takeoff, go-around and en route drift-down
- Add the description of the flight crew actions at takeoff and go-around after the acceleration segment
- The structure of this section is slightly changed. The previous Documentary Units “00023327 - Flight With Gear Down - In-flight abnormal procedure” and “00023368 Flight With Gear Down - Engine Failure” are removed and replaced by the new Documentary Unit “00025310 - Flight With Gear Down - Abnormal Procedures”.

This change does not include the A318, as investigations are still ongoing for this aircraft.

8. Introduction of SBAS Landing System

8.1. Effect on the Manuals

- FCOM
 - Update of *Aircraft Systems / Auto Flight General*
 - Update of *Aircraft Systems / Flight Management*
 - Update of *Aircraft Systems / Flight Guidance*
 - Update of *Aircraft Systems / Indicating/Recording Systems*
 - Update of *Aircraft Systems / Navigation*
 - Update of *Procedures / Abnormal and Emergency Procedures / NAV SLS 1(2)(1+2) FAULT*
 - Update of *Procedures / Abnormal and Emergency Procedures / NAV FM/GPS POS DISAGREE*
 - Update of *Procedures / Normal Procedures / Standard Operating Procedures / Approach*
 - Introduction of *Procedures / Normal Procedures / System Related Procedures / FMS / Approach / Switching from SLS to FLS*
 - Update of *Limitations / Auto Flight System / Autopilot Function & Flight Management Function*
 - Introduction of *Limitations / Navigation / SLS.*
- QRH
 - Update of *Procedures / Abnormal and Emergency Procedures / NAV FM/GPS POS DISAGREE.*

8.2. Applicability

MP P21191 / MOD 165088

8.3. Summary of the Modifications

The SLS function enables the flight crew to fly RNAV (GNSS) straight-in approaches with LP or LPV minima, in accordance with the ILS “look-alike” feature. The SLS uses the GNSS position, with correction signals from geostationary satellite constellations, also known as SBAS.

The FCOM and the QRH are updated to reflect the new capabilities provided by the SLS function.

9. Cabin Pressure Control System (CPCS) Misbehavior When Operating in QFE

9.1. Effect on the Manuals

- FCOM
 - Introduction of the *Procedures / Preliminary Cockpit Preparation / FMGS Preparation / QNH at Destination Pre-Entry (Perf/Appr page)*
 - Modification of the *Procedures / Preliminary Cockpit Preparation / FMGS Preparation / Check of FMGS Preparation.*

9.2. Summary of the Modifications

During descent, CPCS computes the pressurization segment of the descent profile. The objective of this pressurization segment is to ensure that cabin altitude will be compatible with the airport altitude at destination. For this computation, the CPCS needs the arrival airfield altitude (provided by the FMS) and the pressure reference at destination (QNH).

The CPCS takes this QNH from the MCDU perf approach page. However, if the QNH is not entered, the CPCS takes the QNH value from the EFIS control panel.

If the QFE is selected (departure from an airport referenced in QFE), the CPCS will use the QFE as a QNH. When the departure airport is above 5 000 ft, this can lead to an excessive cabin altitude without warning. The warning is inhibited because the CPCS considers that the aircraft will land at high altitude.

In order to avoid this undue increase of the cabin altitude, the flight crew inserts a destination QNH in the MCDU PERF/APPR page during the cockpit preparation. The destination QNH will be obtained by the flight crew from the meteorological information available at dispatch.

This will allow the CPCS to have a reliable QNH reference to compute the descent pressurization segment.

10. Pitot Covers

10.1. Effect on the Manuals

- FCOM
 - Update of the *Procedures / Normal Procedures / Standard Operating Procedures / Preliminary Cockpit Preparation*
 - Update of the *Procedures / Normal Procedures / Standard Operating Procedures / Exterior Walkaround / General*
 - Update of the *Procedures / Normal Procedures / Tasksharing / Preliminary Cockpit Preparation / Preliminary Cockpit Preparation - Before Walkaround Before Walkaround.*
- FCTM
 - Update of the *Procedures / Normal Procedures / Normal Checklists / Cockpit Preparation.*
- QRH

- Update of the *Normal Procedures / Preliminary Cockpit Preparation / Preliminary Cockpit Preparation - Before Walkaround*.

10.2. Summary of the Modifications

Some covers (e.g. MFP covers, etc.) are not stored inside the cockpit. Therefore, the check to verify if the covers are onboard and stowed is removed from the SOP - Preliminary Cockpit Preparation.

Addition of the clarification that all the covers must be checked removed during the Exterior Walkaround.

11. Cabin Ready Function – Taxi and Landing Checklists

11.1. Effect on the Manuals

- QRH
 - Update of *Normal Checklists / Taxi*
 - Update of *Normal Checklists / Landing*.
- FCTM
 - Update of *Procedures / Normal Procedures / Normal Checklists / Taxi*
 - Update of *Procedures / Normal Procedures / Normal Checklists / Landing*.

11.2. Summary of the Modifications

Regardless of the aircraft system configuration:

- A CABIN READY check item is added to the TAXI and LANDING checklists
- The CABIN READY line of the ECAM T.O memo and the ECAM LDG memo is added.

In addition, “If Installed” symbols are added to simplify the management of the CABIN READY function configuration.

12. Flight Guidance

12.1. Effect on the Manuals

- FCOM
 - Enhancement of the *Aircraft Systems / Auto Flight - Flight Guidance*.

12.2. Summary of the Modifications

The following Aircraft Systems chapter is enhanced: 22_30 Auto Flight - Flight Guidance.

The previous structure (on the left) is replaced with a new structure (on the right):

22_30. Auto Flight - Flight Guidance
10. General
20. Flight Director
30. Autopilot (AP)
40. Speed/Mach Control
50. AP/FD Modes General
60. AP/FD Lateral Modes
70. AP/FD Vertical Modes
75. Mode Reversions
80. AP/FD Common Modes
90. Autothrust
100. Flight Mode Annunciator (FMA)
110. Temporary Abnormal Behaviors

22_30. Auto Flight - Flight Guidance
10. General
20. Flight Director
30. Autopilot
40. AP/FD Modes
50. Autothrust
60. Speed/MACH Control
70. Approach and Landing Capability
80. Controls and Indicators
110. Temporary Abnormal Behaviors

The following is enhanced:

- Adaptation of the level of information
- Standardization of the FCOM content, as already applied to the A350 and A380 FCOMs.

This will reduce the size and the number of FCOM revisions.

In addition, for this aircraft system chapter, “If Installed” symbols are added to simplify the management of the aircraft systems configuration.

Please find the CROSS REFERENCE table between the new structure and the old structure of the FCOM Aircraft System section on the next page.

