



GHANA  
CIVIL AVIATION AUTHORITY

# ADVISORY CIRCULAR AC 09-014

## PROCESS & APPLICATION: ADDING VARIANT AIRCRAFT TO AOC

### SECTION 1 GENERAL

#### 1.1 PURPOSE

This Advisory Circular (AC) provides guidance to air operators seeking to add a variant of an aircraft type currently approved under their Air Operator Certificate (AOC) for commercial air transport operations carrying passengers and cargo.

#### 1.2 STATUS OF THIS ADVISORY CIRCULAR

This is an original issuance of this AC.

#### 1.3 BACKGROUND

- A. The addition of a variant aircraft to an existing fleet of that aircraft type requires GCAA approval before any operations of that aircraft. The GCAA must—
  - 1) Determine that this aircraft is compatible with the operations and maintenance procedures previously approved for the specific aircraft fleet; and
  - 2) Ensure that any differences between the variant aircraft and the specific fleet have been addressed by the air operator.
- B. This AC outlines the preparation and submission of a formal application for the addition of the aircraft. It also outlines the overall process that will be followed by SRD personnel during the document conformance evaluation and subsequent inspections and demonstrations necessary to this addition.
- C. The air operator seeking the addition of a variant aircraft will be subject to these evaluations and inspections listed in this AC.

#### 1.4 APPLICABILITY

This AC is applicable to air operators to prepare for the addition of an aircraft to a fleet of aircraft type currently approved for operations under their existing air operator certificate.

##### 1.4.1 DEFINITIONS & ACRONYMS

- A. The following acronyms are used in this advisory circular—
  - 1) **AC** – Advisory Circular
  - 2) **FAC** – Formal Application Checklist

- Advisory Circulars are intended to provide advice and guidance to illustrate a means, but not necessarily the only means, of complying with the directives, or to explain certain regulatory requirements by providing informative, interpretative and explanatory material.
- Where a directive contains the words “prescribed by the Authority,” the AC may consider to “prescribe” a viable method of compliance, but status of that “prescription” is always “guidance” (never a directive).

- 3) **GCAA** – Civil Aviation Authority of Ghana
- 4) **GCAA-SRD** – Safety Regulation Department
- 5) **GCADs** – Ghana Civil Aviation Directives
- 6) **PASI** – Pre-Application Statement of Intent

## 1.5 RELATED DIRECTIVES

The following directives are directly applicable to this advisory circular—

- Part 6, AMO Certification and Administration
- Part 7, Instruments and Equipment
- Part 3, ATO Certification and Administration
- Part 08, Operations of Aircraft
- Part 09, AOC Certification

## 1.6 RELATED PUBLICATIONS

For further information on this topic, operators are advised to review the following publications and regulatory requirements—

1) Ghana Civil Aviation Authority

- ◆ Ghana Civil Aviation Directive, Part 09
- ◆ AC 09-002, Add New Aircraft Type to AOC

Copies may be obtained from the GCAA-SRD.

2) International Civil Aviation Organization (ICAO)

- ◆ Doc 8335. Manual on Operations Certification

Copies may be obtained from Document Sales Unit, ICAO, 999 University Street, Montreal, Quebec, Canada H3C 5H7.

3) Federal Aviation Administration (FAA)

- ◆ Order 8900.1, Flight Standards Information Management System (FSIMS)

Copies may be obtained through the Internet address of [www.fsims.faa.gov](http://www.fsims.faa.gov).

## 1.7 CONTACT THE FLIGHT SAFETY STANDARDS DEPARTMENT FIRST

- A. The AOC holder should contact the SRD early in the planning stage to discuss the requirements for adding a variant aircraft to any existing fleet that has been approved for the operator.
- B. This action will ensure that the operator makes the appropriate application.
- C. The SRD will discuss the required process and requirements. They will provide the necessary application documents.

## SECTION 2 DETERMINING COMPLEXITY OF APPROVAL PROCESS

### 2.1 HOW VARIANT IS THE VARIANT AIRCRAFT?

- A. The GCAA highly recommends that the AOC holder conduct an evaluation of the complexity of the differences between the proposed aircraft and the existing fleet of that aircraft type.
- B. The AOC holder's evaluation team should consist of aircraft type-specific qualified operations and airworthiness personnel.
- C. This completed evaluation form will be the basis for the GCAA decision regarding the extent of the formal application and approval process.

This evaluation should be accomplished using the "Evaluate Variant Aircraft (Same Make/Model)" checklist located in Appendix A to this AC.

### 2.2 DETERMINE THE COMPLEXITY OF THE DIFFERENCES

- A. The AOC holder's evaluation team will determine, for each element of the evaluation checklist, the complexity level assigned to that element from the following listing—
- Level 0 – No document revision or personnel briefing or training required.
  - Level 1 – Document revision required, but no personnel briefing or training required.
  - Level 2 – Document revision required and personnel briefings required to ensure workforce understand differences.
  - Level 3 – Document revision required and formal ground training required to ensure workforce understand complexity of differences.
  - Level 4 – Document revision required, formal ground training required and flight training required to ensure pilots are aware of specific flight characteristics.
- B. The completed evaluation checklist with a complexity level assigned to each element must be formally provided to the GCAA-SRD.

If all of the complexity levels are determined to be 1 or 2 only, the application process will be limited to the evaluation of the submitted documents and observation of briefings.

- If any of the complexity levels are determined to be 3 or 4, the formal application process is required.
- The extent of the process will be determined by the GCAA by applying the submission requirements of this AC.

### 2.3 GCAA-SRD PRELIMINARY EVALUATION

- A. The GCAA-SRD will assign a team of type-qualified operations and airworthiness inspectors to go to the aircraft to audit the AOC holder's evaluation.
- B. This team will review each element to confirm the assigned complexity levels before the GCAA decision is made regarding the extent and complexity of the application
- The results of this preliminary evaluation will be provided to GCAA management.
- C. The GCAA will issue a formal letter of their decision regarding the formal application document submissions and the inspection and demonstrations that will be required.

### 2.4 IF FORMAL APPLICATION IS REQUIRED

If formal application is required, use the guidance in AC 12-002 for the processing of the applications and the formal inspection and demonstrations required.

## APPENDIX A

### Evaluate Variant Aircraft (Same Make/Model)

COMPLETE THIS CHECKLIST FOR INCLUSION WITH THE FORMAL APPLICATION FOR GCAA APPROVAL TO ADD THIS AIRCRAFT TO THE AOC HOLDER'S FLEET.

|   |                      |
|---|----------------------|
| <b>GCADIANT AIRCRAFT EVALUATION FOR AIRCRAFT:</b> _____ |                      |
| <b>CHECKLIST DATE:</b>                                  | <b>COMPLETED BY:</b> |

- For each subject area, check NO if there are no differences between this aircraft and the existing AOC holder's fleet of this make and model.
- For each subject area, check YES if there is a difference between this aircraft and the existing AOC holder fleet of this make and model.
- For each element, enter the complexity level of differences (as specified in Section 2 of this AC) in the LEVEL column
- In the DOC REVISIONS column, enter the manual and chapter or paragraph where revisions were made to accommodate the inclusion of this aircraft in the AOC holder's fleet of this make and model.

| 1   | FLIGHT DECK   | YES | NO | NA | LEVEL | DOC REVISION |
|-----|---|-----|----|----|-------|--------------|
| 1.1 | Flight Management System Presentation and Operation |     |    |    |       |              |
| 1.2 | Primary Flight Guidance Presentation and Operation  |     |    |    |       |              |
| 1.3 | Other Instrumentation Location and Marking?         |     |    |    |       |              |
| 1.4 | Other Switch Location and Operation                 |     |    |    |       |              |
| 1.5 | Warning Indications and Sounds Presentation?        |     |    |    |       |              |
| 1.6 | Circuit Breaker Location                            |     |    |    |       |              |
| 1.7 | Communications Equipment                            |     |    |    |       |              |
| 2   | CRITICAL INFORMATION                                | YES | NO | NA | LEVEL | DOC REVISION |
| 2.1 | Instrument Approach Minimums                        |     |    |    |       |              |
| 2.2 | Passenger Information Cards                         |     |    |    |       |              |
| 2.3 | Condensed Checklists                                |     |    |    |       |              |
| 2.4 | Expanded Checklists                                 |     |    |    |       |              |
| 2.5 | Aircraft Limitations                                |     |    |    |       |              |
| 2.6 | Aircraft Performance                                |     |    |    |       |              |
| 2.7 | Aircraft Weight and Balance                         |     |    |    |       |              |
| 2.8 | Weight and Balance Computations                     |     |    |    |       |              |

|          |  |            |           |           |              |                     |
|----------|--|------------|-----------|-----------|--------------|---------------------|
| 2.9      | Operational Flight Plan Computations             |            |           |           |              |                     |
| 2.10     | Aircraft Operation Manual                        |            |           |           |              |                     |
| 2.11     | Minimum Equipment List (Installation & Dispatch) |            |           |           |              |                     |
| 2.12     | Training Programme or Syllabi                    |            |           |           |              |                     |
| 2.13     | Operational Bulletin                             |            |           |           |              |                     |
| 2.14     | Maintenance Program                              |            |           |           |              |                     |
| 2.15     | Main Program Bridging Doc                        |            |           |           |              |                     |
| 2.16     | Reliability Program                              |            |           |           |              |                     |
| 2.17     | Engine Condition Monitoring                      |            |           |           |              |                     |
| 2.18     | Illustrated Parts Catalog                        |            |           |           |              |                     |
| <b>3</b> | <b>AIRCRAFT SYSTEMS</b>                          | <b>YES</b> | <b>NO</b> | <b>NA</b> | <b>LEVEL</b> | <b>DOC REVISION</b> |
| 3.1      | Aircraft General                                 |            |           |           |              |                     |
| 3.2      | Air Conditioning and Pressurization              |            |           |           |              |                     |
| 3.4      | Automatic Pilot                                  |            |           |           |              |                     |
| 3.5      | APU  |            |           |           |              |                     |
| 3.6      | Electrical                                       |            |           |           |              |                     |
| 3.7      | Emergency Equipment Location and Use             |            |           |           |              |                     |
| 3.8      | Powerplant                                       |            |           |           |              |                     |
| 3.9      | Fire Protection                                  |            |           |           |              |                     |
| 3.10     | Flight Controls                                  |            |           |           |              |                     |
| 3.11     | Fuel   |            |           |           |              |                     |
| 3.12     | Hydraulics                                       |            |           |           |              |                     |
| 3.13     | Ice & Rain Protection                            |            |           |           |              |                     |
| 3.14     | Instrumentation and                              |            |           |           |              |                     |
| 3.15     | Landing Gear                                     |            |           |           |              |                     |
| 3.16     | Navigation                                       |            |           |           |              |                     |

*End of Advisory Circular*

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