

USE OF SCHEDULES, CURRENTLY OR FORMERLY, PUBLISHED BY UK CAA FLIGHT DEPARTMENT

Owner/Operator-Initiated Check Flights using UK CAA Published Schedules

Following cessation of the BCAR required Continued Airworthiness Flight Testing scheme (CAFT) for aircraft which are, for all practical purposes, under EASA regulations, CAA are concerned about problems that might arise from the use of legacy Airworthiness Flight Test Schedules (AFTS), or newly published Check Flight Schedules (CFS), on check flights conducted voluntarily by owners/operators.

This guidance material is intended to draw your attention to issues, which require proper consideration, and to emphasize the basis on which any non-mandated check flights are conducted. The concerns involve three aspects: The applicability of the Schedule, the conduct and monitoring of the check flights, and the standard/applicability of the Flight Manual.

1. Applicability of CAA Airworthiness Flight Test or Check Flight Schedules¹

In the past the CAA AFTS were prepared following UK Type Certification of the aircraft involved. They were tailored to the standard and configuration of the aircraft on the UK register. The Schedules assumed that any changes, which were required by UK Additional Requirements for Import (ARIs), had been incorporated. Other tests may have been specific to a UK variant and were dependent on optional items that the UK operator(s) of the type had specified. Use of the Schedules for flight testing aircraft of any other standard, such as those that are now accepted on to the UK register on the basis of an EASA type design, may therefore invalidate certain tests, or even have flight safety implications.

There may also be, in existence, Schedules for aircraft, which have now been withdrawn from UK service, despite continued operation of the type or variant in other countries. In such cases it is unlikely that CAA will have maintained current knowledge of the aircraft type. Subsequent modifications, service bulletins or AD's may invalidate a previously valid Schedule.

When considering the use of either a legacy CAA AFTS or a recently published CFS for check flights, careful consideration of the aircraft standard and configuration is essential to ensure the Schedule is applicable. CAA cannot accept responsibility for events or damage resulting from the use of these Schedules, where their use is not a requirement by the CAA.

2. Conduct and Monitoring of Check Flights

The CAFT programme was an activity led by CAA, in which it had a significant level of participation, together with the attendant expertise. Currently CAFT is only required for those aircraft specifically under CAA control ('non-EASA' aircraft), which is a relatively small sub-set of aircraft types on the UK register. The previous scheme demanded a level of control by CAA of the eligibility of pilots to whom the task was devolved, and supervision of the output of those pilots. The cessation of this mandated activity for EASA aircraft, may still lead to requests by owners/operators to pilots, who had previously held approvals to conduct the activities, to carry out voluntary tests on their behalf. As far as any form of check flight on an EASA aircraft is concerned, the CAA no longer has a programme to

¹ Henceforward in this document, the use of the word Schedule refers to either an AFTS or a CFS.

determine and monitor the suitability of any pilot to conduct such voluntary tests, and it should not be assumed that previously-approved pilots remain current and competent. Owners/operators conducting voluntary check flights need to satisfy themselves as to the competence of pilots, and as with other Personnel Requirements of MA706 of Commission Regulation (EC) No. 2042/2003, check flight pilots should be nominated.

CAA Flight Department is willing to support training and familiarization for pilots wishing to perform check flights, but since it has no regulatory function in this respect, such activity can only be offered on a consultative basis.

For mandated check flights on non-EASA aircraft [i.e. for the issue or renewal of an airworthiness certificate in accordance with BCAR], CAA Flight Department will be able to confirm to applicants the eligibility, or otherwise, of the pilot nominated to carry out and submit the results of the check flight, should it have been decided that conduct of the check flight may be devolved to the applicant. Enquiries should be made prior to the conduct of the check flight.

3. Flight Manuals

Additional specific material to enable the conduct and analysis of results of check flights is sometimes needed. This has previously taken the form of a dedicated Supplement or Appendix to the Aircraft Flight Manual. This additional material included performance charts for use in analysing the performance climbs referenced in some Schedules. These charts give the performance in terms of rate of climb, whereas the main performance section of the Flight Manual will normally express climb performance in terms of gradients. In some cases it might be possible to calculate the scheduled performance from the gradient charts, but great care is necessary to ensure that the chart is applicable to the test flown i.e. it refers to the same airspeed, power setting and engine air bleed condition and that it can be converted to provide 'gross' rather than 'net' performance. Where the Schedule requires a climb to be carried out with the 'inoperative' engine at idle rather than fully shutdown, the gradient charts in the main performance section of the Flight Manual are not applicable. They assume a fully shutdown engine and the effect of an idling engine (which can be very significant) will only be taken into account in any additional rate of climb charts prepared for that purpose.

As part of the generic procedures, the tests in the Schedules normally require the aircraft to be flown beyond V_{MO} and M_{MO} and hence outside the normal Flight Manual Limitations. Additional material in UK Flight Manuals permitted such excursions for the purpose of airworthiness flight testing. In the absence of such a statement in the Flight Manual for the specific aircraft, owners/operators should consult manufacturers to determine a basis for small excursions beyond declared AFM limits.

Additional material may also include stall speeds in terms of indicated airspeed if the performance section of the Flight Manual only gives them in terms of CAS or EAS. Where quoted in the Schedules, values are usually indicated values.

4. Conclusion

There is a responsibility on owners/operators of "EASA aircraft" to ensure that the use of legacy CAA AFTS or new CFS is appropriate for any elective flight testing or check flights they wish to carry out. Where doubts exist with regard to the aircraft standard or details of the planned test programme the CAA Flight Department should be consulted for advice, or alternatively queries should be placed with the aircraft manufacturer. CAA do not accept any responsibility for the use of CAA Schedules on check flights not directly under their control.