



Ministry of Defence Defence Standard 05-100

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Ministry of Defence Requirements for Aircraft Flight and Ground Running



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Foreword

AMENDMENT RECORD

Amd No	Date	Text Affected	Signature and Date

REVISION NOTE

Issue 4 of this Defence Standard (Standard) allows a competent person, approved by the contractor or the Authority, to validate and authorise Flight and Engine Ground Running Certification.

HISTORICAL RECORD

This Standard supersedes the following:

Defence Standard 05-100 Issue 3 dated 16 June 2006
 Defence Standard 05-100 Issue 2 dated 18 October 2004
 Defence Standard 05-100 Issue 1 dated 30 March 2001
 Av P 84 Leaflet A 208 Inspection of Aircraft (Form 6/38-Edition July 1972)

- a) This Standard defines the requirements that a contractor shall meet for the Ministry of Defence (MOD) to permit authorised flights, taxiing trials and initial engine running by contractors. This standard is relevant where called up in contracts containing Defence Condition (DEFCON) 638.
- b) This Standard has been produced on behalf of the Defence Material Standardization Committee (DMSC) by the Society of British Aerospace Contractors (SBAC) / MOD Working Group and the MOD Quality Assurance Authority (MOD QAA). This Standard is sponsored by the MOD QAA.
- c) This Standard has been agreed by the authorities concerned with its use and is intended to be used whenever relevant in all future designs, contracts, orders etc. and whenever practicable by amendment to those already in existence. If any difficulty arises which prevents application of the Standard, UK Defence Standardization (DStan) shall be informed so that a remedy may be sought.
- d) Any enquiries regarding this Standard in relation to an invitation to tender or a contract in which it is incorporated are to be addressed to the responsible technical or supervising authority named in the invitation to tender or contract.
- e) Compliance with this Standard shall not in itself relieve any person from any legal obligations imposed upon them.
- f) This Standard has been devised solely for the use of the Ministry of Defence (MOD) and its contractors in the execution of contracts for the MOD. To the extent permitted by law, the MOD hereby excludes all liability whatsoever and howsoever arising (including, but without limitation, liability resulting from negligence) for any loss or damage however caused when the Standard is used for any other purpose.

0 Introduction

0.1 This Standard defines the requirements for the completion and authorisation of a Flight Authorisation Certificate (FAC) or Engine Ground Running Certificate (EGRC) by a Contractor's Recognised FAC Signatory, or the endorsement of a Ferry-FAC by the Authority's Authorised Representative, when aircraft undertake Authorised Flights and initial Engine Ground Running for contracts invoking DEFCON 638.

0.2 This Standard requires that a contractor's Recognised FAC Signatory or the Authority's Authorised Representative verifies from documents made available, that the aircraft meets the design standard laid down in the Certificate of Design and the Certificate for Flight Trials. Where an aircraft is to be flown within the existing Release to Service (RTS) a Certificate for Flight Trials may not be required.

0.3 U.K. military registered aircraft covered by the requirements of this standard shall not be flown, taxied or Engine Ground Run unless authorisation in the form of a FAC or EGRC has been obtained. Only a contractor's Recognised FAC Signatory or the Authority's Authorised Representative can give this authorisation.

Ministry of Defence Requirements for Aircraft Flight and Ground Running

1 Scope

1.1 This Standard defines the requirements for the completion and authorisation of a Flight Authorisation Certificate (FAC) or Engine Ground Running Certificate (EGRC). The Standard applies when DEFCON 638 is included in a contract.

1.2 This Standard is applicable to new build UK military registered aircraft not delivered to the Authority (off contract), and military registered aircraft that are allotted to the contractor for contracted work.

1.3 This Standard is not applicable to Aircraft Loan Agreements (see Def Stan 05-123 Part 5), unless otherwise agreed by the Authority.

2 Warning

The Ministry of Defence (MOD), like its contractors, is subject to both United Kingdom and European laws regarding Health and Safety at Work. Many Defence Standards set out processes and procedures that could be injurious to health if adequate precautions are not taken. Adherence to those processes and procedures in no way absolves users from complying with legal requirements relating to Health and Safety at Work.

3 Normative References

3.1 The publications shown below are referred to in the text of this Standard. Publications are grouped and listed in alpha-numeric order.

AvP 67	Flying Orders to Contractors
DEFCON 638	Flights - Liability and Indemnity
Def Stan 05-61 Part 9	Independent Inspection Requirements for Safety Critical items.
Def Stan 05-123 Part 1	Technical Procedures for the Procurement of Aircraft, Weapon and Electronic Systems – Approval Procedure and Responsibilities
Def Stan 05-123 Part 2	Technical Procedures for the Procurement of Aircraft, Weapon and Electronic Systems – Development Procedures
	Note: The following text references are contained within Def Stan 05-123 Part 2:
	Certificate of Design
	Interim Certificate of Design
	Certificate for Flight Trials
	Flight Test Schedule
	Ground Test Schedule
	Engine Ground Running Schedule
Def Stan 05-123 Part 5	Technical Procedures for the Procurement of Aircraft, Weapon and Electronic Systems – Production Procedures
JAP 100A 01	Military Aviation Engineering Policy and Regulations
JSP 551	Military Flight Safety Regulations
JSP 553	Military Airworthiness Regulations

3.2 Reference in this Standard to any normative references means in any Invitation to Tender or contract the edition and all amendments current at the date of such tender or contract unless a specific edition is indicated.

3.3 In consideration of clause 3.2 above, users shall be fully aware of the issue and amendment status of all normative references, particularly when forming part of an Invitation to Tender or contract. Responsibility for the correct application of standards rests with users.

3.4 DStan can advise regarding where to obtain normative referenced documents. Requests for such information can be made to the DStan Helpdesk. Details of how to contact the helpdesk are shown on the outside rear cover of Defence Standards.

3.5 Informative Reference List

JSP 556 Military Aviation Test Flying Policy, Regulations and Directives.

4 Abbreviations

DAOS	Design Approved Organisation Scheme
DEFCON	Defence Condition
Def Stan	Defence Standard
DStan	UK Defence Standardisation
EGRC	Engine Ground Running Certificate
FAC	Flight Authorisation Certificate
GQAR	Government Quality Assurance Representative
IPTL	Integrated Project Team Leader
MOD	Ministry of Defence
RTS	Release to Service
RTW	Return to Work
QAA	Quality Assurance Authority

5 Definitions

The following definitions apply throughout this Standard

5.1 Airworthiness

The ability of an aircraft or other airborne equipment or system to operate without significant hazard to aircrew, ground crew, passengers (where relevant), or to the general public over which such airborne systems are flown. [JSP 553].

5.2 Allotment

Allocation of UK military registered aircraft to a specific organization, the point at which the transfer of accountability takes place is defined in the relevant allotment signal. Temporary arrangements can also exist whereby aircraft are allotted chock to chock to a specific organization. The contract terms will establish the asset accounting treatment of the allotted aircraft and any associated liability as government furnished equipment.

5.3 Authority

Secretary of State for Defence.

5.4 Authority's Authorised Representative

A member of a Registered GQAR Organisation with the requisite scope and competency or the Authority's IPTL or a Crown Servant who is authorised by the IPTL.

5.5 Authorised Flight

A flight or taxiing trial in support of a contract for which the contractor holds a valid Flight Authorisation Certificate or in the case of an engine ground run, a valid Engine Ground Running Certificate.

5.6 Initial Engine Ground Run

The first engine run following installation into the airframe.

5.7 Engine Ground Run

Running the installed main propulsion engine or engines of the aircraft on the ground with no intention to taxi or fly. [DEFCON 638].

5.8 Engine Ground Run Certificate

A certificate completed in accordance with this Standard (specimen form at **Annex B**). The certificate permits aircraft engine ground running and activates the indemnity provisions of DEFCON 638.

5.9 Ferry Flight

A flight from a MOD Service Unit for delivery to a contractor; where the aircraft is flown within the existing Release to Service (RTS).

5.10 Flight Authorisation Certificate

A certificate completed in accordance with this Standard (specimen forms at Annexes A and C). The certificate permits the aircraft to fly and activates the indemnity provisions of DEFCON 638.

5.11 Recognised FAC Signatory

A competent person appointed by the contractor to sign Part 2 of the Flight and Engine Ground Running Certification.

6 General Requirements

6.1 Before a U.K. military registered aircraft is flown at a contractor's airfield, or other location including Government Establishments, the contractor shall comply with the requirements of AvP 67 'Flying Orders to Contractors', or similar document to be defined by the Authority.

6.2 For MOD to permit an aircraft made by, or allotted to, the contractor to undergo authorised flights, taxiing trials or engine ground running the contractor shall complete all relevant parts of the applicable certificates as required by this Standard.

6.3 A person appointed by the contractor who has the necessary competence and probity shall complete Part 1 of each certificate on behalf of the contractor.

6.4 The signatory of Part 1 of a certificate shall be satisfied that the aircraft has been constructed, modified, functioned, serviced, maintained and/or inspected in accordance with approved drawings, specifications, and procedures and meets the design standard laid down in the Certificate of Design and the Certificate for Flight Trials. If an aircraft is to be flown within the existing Release to Service (RTS), a Certificate for Flight Trials may not be required.

6.5 The contractor shall appoint a person(s) who has the necessary competence and probity to have the responsibility of the Recognised FAC Signatory for Part 2 of each of the certificates. Those persons shall be independent from the person who signs Part 1 of the certificates and shall be independent from the task that is the subject of the certificate.

6.6 The Recognised FAC Signatory is responsible for verifying from documentation made available, that the aircraft is in conformity with the requirements of this Standard before signing Part 2 of the certificate. The documentation and related requirements are set out at **clauses 7, 8, 9, 11, 12 and 14** of this Standard.

6.7 The contractor shall maintain a list of the Recognised FAC Signatory(s). The contractor is to make the list available, upon request by the Authority's Authorised Representative.

6.8 The contractor's process of approving a Recognised FAC Signatory may be subject to audit by the Authority's Authorised Representative.

6.9 Both the Recognised FAC Signatory and the Authority's Authorised Representative shall sign Part 2 of an FAC for the first flight of an experimental, prototype or development aircraft and the first flight of a new aircraft type or aircraft mark number.

6.10 Where the flight is a Ferry Flight, only the Authority's Authorised Representative shall sign Part 2 of the certificate.

6.11 The verifications carried out by the Recognised FAC Signatory or the Authority's Authorised Representative may be at suitable stages prior to the submission of the certificate for authorisation and after special inspections by the contractor under Def Stan 05-61 Part 9. The Recognised FAC Signatory may undertake verifications by planned surveillance and the contractor shall make provision for this in his programmes. These verifications may be the subject of periodic audit activities by the Authority's Authorised Representative

6.12 The Recognised FAC Signatory shall verify that the Authority has formally allotted the aircraft for the purposes of the contract, unless the aircraft is new build and is not delivered to the Authority.

6.13 Certificates are to be reproduced from the templates at **Annex A, B and C**. When reproducing the templates, the contractor shall ensure that the instructions for use at **Annex A.1, B.1 and C.1** to this Standard respectively are reproduced on the obverse of the applicable certificate. Upon request, the contractor shall make available to the Authority's Authorised Representative a copy of the signed certificates.

6.14 Aircraft covered by the requirements of this Standard shall not be flown, taxied or Engine Ground Run, unless authorisation for that purpose is held in the form of a FAC or EGRC prepared in accordance with this Standard.

6.15 The contractor shall not run, dismantle, or adjust engines, power plants or engine change units issued by the Authority for installation in an aircraft for any purpose unless authorisation for that purpose is held in the form of an EGRC. Any adjustment of engines shall be in accordance with MOD approved data.

6.16 The FAC, EGRC or Ferry-FAC shall remain in force only until the expiry of its validity for the specified flight or period, or until events occur as prescribed at **Annex A.2, B.2 and C2** respectively.

6.17 The contractor shall notify the Recognised FAC Signatory and, when requested, the Authority's Authorised Representative, of any change, fault or defect that would affect the Authorised Flight or Engine Ground Run, or the validity of the FAC or EGRC and submit a new FAC or EGRC if appropriate. The required signatories of Part 2 of the FAC may withdraw authorisation for the FAC or EGRC at any time for these reasons.

6.18 No alterations or amendments shall be made to an FAC or EGRC. If a compilation error is made that requires an alteration, the contractor shall cancel the affected FAC or EGRC and retain the cancelled form for record purposes. The contractor shall raise a new certificate containing the amended information.

7 Demonstration of Design Standard (Flight Clearance Requirements)

7.1 The contractor shall demonstrate to the required Part 2 signatories of the applicable certificate that:

7.1.1 A Certificate of Design or Interim Certificate of Design for the aircraft type, mark, and build standard exists, certified by personnel recognised by the Authority e.g. Design Approved Organisation Scheme approved signatories (Approved Signatory), Defence Standard 05-123 Part 1.

7.1.2 The declared configured status of the aircraft is fit for the purpose of the intended flight(s) as detailed in the FAC.

7.1.3 The requirements at **clause 14** of this Standard are met for prototype, development, and experimental aircraft.

8 Scope of Flight Appropriate to Design Standard (Flight Clearance Requirements)

8.1 The contractor shall demonstrate to the required Part 2 signatories of the applicable certificate that:

8.1.1 The contractor's airfield, the pilots, crew, observers and other persons to be carried, have been approved in accordance with AvP 67 'Flying Orders to Contractors', or a similar document agreed in writing by the Authority;

8.1.2 The appropriate flight test schedule has been approved in accordance with the contractor's procedures by a competent person appointed by the contractor and forms part of the contracted flight programme agreed with the Authority;

8.1.3 There is a valid 'Certificate for Flight Trials' or an amended 'Certificate for Flight Trials' agreed by the Authority certified by the Approved Signatory. Where an aircraft is to be flown within the existing Release to Service (RTS) a Certificate for Flight Trials (Def Stan 05-123 Part 2) may not be required.

8.2 In certain instances e.g. overseas procurement, the Authority may authorise at its sole discretion, the use of alternative equivalent certificates approved by the MOD Flight Test Regulator.

9 Airworthiness - Authorised Flights and Engine Ground Running (Flight Clearance Requirements)

9.1 The contractor shall demonstrate to the required Part 2 signatories of the applicable certificate in accordance with this standard and the contractor's procedures that:

- a) all equipment fitted to the aircraft is approved, qualified, tested, and compliant with the particular certified design standard of the aircraft, as required by the contract;
- b) all planned inspection stages have been completed;
- c) independent inspection requirements have been carried out in accordance with the conditions specified in Def Stan 05-61 Part 9, or equivalent agreed by the Authority;
- d) for new build aircraft, all equipment and associated systems fitted to the aircraft have been inspected, functioned and comply with the requirements of the approved ground test schedule or engine ground running schedule;
- e) all normally dormant systems considered vital to the safety of the aircraft or aircrew, or both, have been functioned or tested during final inspection and immediately before flight or following system disturbance, and comply with the specified requirements;
- f) the relevant aircraft servicing schedules and applicable technical instructions required by the contract have been satisfied, unless otherwise agreed by the Authority;
- g) the weight and position of centre of gravity of the aircraft have been determined and that the aircraft, prepared for flight, is so loaded that its weight and centre of gravity comply with the provisions of the Certificate for Flight Trials or an equivalent certificate agreed by the Authority;
- h) flight limitations have been defined, special flying instructions are being complied with, acceptable deferred faults and major concessions as required by the contract have been recorded and approved for flight;
- i) for Return To Works (RTW) programmes, all systems disturbed have been fully functioned and revalidated. The airworthiness requirements for RTW programmes shall be specified in the contract;
- j) immediately prior to the application for Initial Engine Ground Runs and prior to successive Engine Ground Runs a check for cleanliness shall be made by the contractor to the engine and jet pipe installations, air intake, surrounding aircraft structures and the area surrounding the aircraft and in front of the air intakes.

10 Flight Authorisation Certificate (Flight Clearance Requirements)

10.1 A competent person who has been appointed by the Contractor shall complete Part 1 of the FAC and the Recognised FAC Signatory shall complete Part 2 of the FAC on behalf of the Contractor.

10.2 Where the Authority's Authorised Representative is required to sign Part 2 of an FAC (see **clause 6.9**), the contractor shall make the aircraft available to the Authority's Authorised Representative, together with evidence of its Airworthiness and fitness for the intended purpose.

10.3 The contractor shall use the following certificate templates when applying for permission to fly:

- a) Manned flights: Annex A.
- b) Ferry flights Annex C.

10.4 When authorised, the FAC shall only remain in force for the specified flight(s) or period stated in Part 2 of the FAC, or until events occur as prescribed at **Annex A.2, and C.2**.

11 Engine Ground Running Certificate (Flight Clearance Requirements)

11.1 Prior to requesting permission to run an installed engine for the first time, the Contractor shall obtain the appropriate technical and design clearance for the engine/airframe combination as required in the applicable contract.

11.2 When an engine installation is of new or modified design, the aircraft Contractor shall obtain certification of the design from the Engine Contractor before requesting permission to run installed engines.

11.3 A competent person who has been appointed by the contractor shall complete Part 1 of the EGRC (**Annex B**) and the Recognised FAC Signatory shall complete Part 2 of the EGRC on behalf of the contractor.

11.4 Both the Recognised FAC Signatory and the Authority's Authorised Representative shall sign Part 2 of an EGRC for the Initial Engine Ground Run of an experimental, prototype or development aircraft and the Initial Engine Ground Run of a new aircraft type or aircraft mark number. The contractor shall make the aircraft available to the Authority's Authorised Representative, together with evidence of its Airworthiness and fitness for the intended purpose, when requesting the EGRC.

11.5 When authorised, the EGRC shall only remain in force for the specified Engine Ground Running requirements or until events occur as prescribed at **Annex B.2**.

12 Collecting Aircraft from Service Units (Flight Clearance Requirements)

12.1 Where the contract requires a contractor to collect and ferry an aircraft from a location remote from his own premises i.e. Service Units. The contractor shall make reasonable enquiries and investigations to confirm that the aircraft is fit for the purpose of the intended flight(s). Reasonable evidence for fitness for purpose may take the form of certification from the supplying Service Unit, e.g. MOD Form 700 series documentation. The FAC form Annex C is used to provide an engineering declaration for fitness for purpose based upon MOD Form 700 series documentation evidence.

12.2 Where a flight is authorised under this section of the Standard; permission for flight will be granted using the FAC template at Annex C, authorised by the Authority's Authorised Representative.

12.3 The contractor shall confirm that the Authority has issued an allotment signal for the aircraft. Aircraft flights, including Ferry-flights, may be allotted "chock to chock" to a specific organisation or contract. These chock to chock allotments are used for short-duration tasking arrangements.

13 Overseas Trials Agreements (Flight Clearance Requirements)

13.1 Where the contract requires that the aircraft operates within an overseas environment or facility, the aircraft indemnity strategy and responsibilities shall be agreed by the IPTL, the MOD Flight Test Regulator and the contractor before the start of the trial.

14 Demonstration of Design Standards (Additional Flight Clearance Requirements for Experimental, Prototype and Development Aircraft)

14.1 In addition to the requirements set out in the preceding clauses of this Standard the contractor shall demonstrate to the required signatories of Part 2 of the FAC that:

- a) instrumentation and special equipment required for the Authorised Flight have been approved, installed, calibrated and tested to be compliant to the particular certified design standard of the aircraft;
- b) items of equipment (hardware/software) of new design have received full or interim certificates of approval for the Authorised Flight, and form part of the configuration set out in **clause 7** of this Standard;
- c) a list has been compiled of all installed equipment subject to interim approval, detailing the respective flight limitations to be observed;
- d) a valid Certificate for Flight Trials (Def Stan 05-123 Part 2), or an equivalent certificate agreed by the Authority specifying the design standard of the aircraft to be flown, signed by an Approved Signatory is in force and is endorsed by the Authority's Representative.

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Annex A MOD – FLIGHT AUTHORISATION CERTIFICATE

To be completed in accordance with DEF STAN 05-100. See reverse for instructions for use.

FAC SERIAL No:

PART 1:

Allotment Serial No:
(where applicable)

Engine Type(s) &
Serial Number(s):

Contract No(s):

Aircraft Registration No:

Aircraft Type:

The aircraft above has a Certificate for Flight Trials or a Release to Service, as referenced below, and is required to carry out flight testing or flying for the purposes of the Contract:

The Contractor will carry out the flight(s) using the following airfield(s):

subject to the following restrictions:

Details of Pilot:

I certify that the aircraft has been inspected, including the engines, engine installations, and instruments, and is to the best of my knowledge fit for the purpose of the intended flight(s) I request permission for the flight(s) to proceed..

Name of Contractor:

Designation of
Contractor's signatory:

Name (print):

Signature:

Date:

PART 2:

I certify that I am satisfied from the documents made available to me that the flight(s) is/are to the best of my knowledge in conformity with the requirements of Defence Standard 05-100, particularly Clauses 7, 8 and 9.

This Flight Authorisation Certificate is valid for flights/days [*delete as appropriate*], from the date of the last required signature below, including that day, or until invalidated under the conditions at Annex A.2 to Defence Standard 05-100, whichever is the sooner.

RECOGNISED FAC SIGNATORY (for all flights)

Name (print):

Designation
of signatory:

Signature:

Date:

AUTHORITY'S AUTHORISED REPRESENTATIVE (only for the first flight of an experimental, prototype or development aircraft or the first flight of a new aircraft type or Mark No.)

Name (print):

Designation
of signatory:

Signature:

Date:

On completion of Part 1 and Part 2 in accordance with DEF STAN 05-100, the Authority grants permission for the specified flight(s) under the terms of the Contract which enables the indemnity under DEFCON 638 during the validity of the Flight Authorisation Certificate.

Annex A

(of MOD - Flight Authorisation Certificate)

A.1 Instructions For Use Of Flight Authorisation Certificate

A.1.1 Defence Standard 05-100 controls the preparation and authorisation of a FAC. A valid FAC establishes an Authorised Flight under DEFCON 638.

A.1.2 The contractor is to raise each certificate locally, give it a serial number, complete Part 1, and when authorised under Part 2 by the required signatories distribute as follows:

- | | |
|-------------|--|
| Original | Retained by the Contractor; |
| First Copy | To the pilot; |
| Second Copy | To the Authority's Authorised Representative (when requested). |

A.1.3 The contractor may reproduce the FAC template electronically (or by other means). The contractor shall ensure that any reproduction is double sided, including these instructions for use, and that all copies are accurate and legible. No one may alter a certificate. In the event of an error, the contractor shall cancel the certificate and retain the cancelled copies for record purposes. If the contractor produces FACs electronically, they must contain original (manuscript) signatures and not electronically generated or reproduced signatures.

A.1.4 When a certificate becomes invalid for any reason prescribed in **Annex A.2** of Def Stan 05-100, the contractor shall issue a new certificate to authorise succeeding flights. The contractor shall record the reasons for the invalidity and immediately advise the Recognised FAC Signatory concerning the reasons for the invalidity. The contractor must advise the Authority's Authorised Representative of those reasons on request.

A.1.5 Where the aircraft is to be piloted by one of the contractor's approved pilots it is permissible to enter the words "Pilot approved for the type and task" in the field allocated for the pilot's details. Service pilots who are on long or short term loan or attachment to a contractor for flying duties are to be authorised by the Head of Flying under the contractor's arrangements. Therefore, Service pilots may be regarded in the same manner as contractor's pilots, and the FAC may be completed as for contractor's pilots.

A.1.6 The contractor may use this certificate to authorise flights by contractor's pilots or Service/Authority pilots.

A.1.7 Both the Recognised FAC Signatory and the Authority's Authorised Representative shall authorise an FAC for the first flight of an experimental, prototype or development aircraft and the first flight new aircraft type and aircraft mark number.

A.1.8 It is acceptable that an aircraft may have more than one FAC in operation at the same time. For example, where a dedicated aircraft is operating on a number of contracts or an aircraft is operating on two or more contracts during the same flight. To avoid confusion in relation to any possible claims under the indemnity cover afforded by DEFCON 638, the contractor shall make clear which FAC is in operation for any particular activity. When an aircraft is operating on two or more contracts with a single contractor it is acceptable that the contractor identifies more than one contract on the FAC; the latest issue of this Standard called up by the contracts involved will apply to the preparation of the FAC and its validity.

A.1.9 The contractor shall complete all relevant parts of the FAC.

Annex A

(of MOD - Flight Authorisation Certificate)

A.2 Validity Of Flight Authorisation Certificate

A.2.1 The Flight Authorisation Certificate (FAC) shall apply to only one aircraft identified by the registration number of that aircraft.

A.2.2 The contractor shall ensure that the Authority has formally allotted the aircraft for the purpose of the contract, unless the aircraft is new build and is not yet delivered to the Authority.

A.2.3 The duration of validity of the FAC will be at the discretion of the Recognised FAC Signatory or the Authority's Authorised Representative.

A.2.4 When authorised by the required signatories of Part 2, an FAC will remain in force, subject to the carrying out of routine flight servicing in accordance with approved schedules, for the period stated in Part 2 of the FAC or until:

A.2.4.1 Any alterations, replacements (hardware and software), repairs or adjustments outside the scope of normal daily flight adjustments are made to flight safety critical features; or

A.2.4.2 The aircraft or flight safety critical features become due for periodic or other specified maintenance; or

A.2.4.3 An alteration or modification to the aircraft is required which necessitates an amended 'Certificate for Flight Trials' (see Defence Standard 05-123 Part 2); or

A.2.4.4 The aircraft is to be flown for any purpose other than that stated on the current FAC; or

A.2.4.5 The aircraft is involved in an 'occurrence' as defined in JSP 551 Volume 1.

A.2.5 The required signatories have the discretion to withhold, or withdraw their authorisation for flight at any time.

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Annex B MOD – ENGINE GROUND RUNNING CERTIFICATE

To be completed in accordance with DEF STAN 05-100. See reverse for instructions for use.

EGRC SERIAL No

PART 1:

Aircraft Allotment Serial No: <input style="width: 150px; height: 25px;" type="text"/>	Engine Type & Serial No(s): <input style="width: 100%; height: 40px;" type="text"/>
Contract No: <input style="width: 150px; height: 25px;" type="text"/>	
Aircraft Registration No: <input style="width: 150px; height: 25px;" type="text"/>	Aircraft Type: <input style="width: 150px; height: 25px;" type="text"/>

The aircraft/engine combination above has the following Technical Certificate/Flight Clearance Note for Authorised Engine Ground Running:

The Contractor will carry out the Engine Ground Run at the following airfield

subject to the following restrictions:

I certify that —

- a) the engine(s) have been inspected and are clean and free from loose items and there are no insecure parts; and
- b) the airframe/engine combination has been inspected and is to the best of my knowledge fit for the purpose of the intended Engine Ground Run.

I request permission for the Engine Ground Run to proceed.

Name of Contractor: <input style="width: 150px; height: 25px;" type="text"/>	Designation of Contractor's signatory: <input style="width: 100px; height: 25px;" type="text"/>
Name (print): <input style="width: 100px; height: 25px;" type="text"/>	Signature: <input style="width: 100px; height: 25px;" type="text"/>
	Date: <input style="width: 100px; height: 25px;" type="text"/>

PART 2:

I certify that I am satisfied from the documents made available to me that the intended Engine Ground Run is in conformity with the requirements of Defence Standard 05-100, particularly Clauses 9 and 11.

This Engine Ground Running Certificate will remain valid until invalidated under the conditions at Annex B.2 to Defence Standard 05-100.

RECOGNISED FAC SIGNATORY (for all engine ground running)

Name (print): <input style="width: 150px; height: 25px;" type="text"/>	Designation of signatory: <input style="width: 100%; height: 25px;" type="text"/>
Signature: <input style="width: 150px; height: 25px;" type="text"/>	Date: <input style="width: 100%; height: 25px;" type="text"/>

AUTHORITY'S AUTHORISED REPRESENTATIVE (only for an Initial Engine Ground Run of an experimental, prototype or development aircraft or a new aircraft type or Mark No.)

Name (print): <input style="width: 150px; height: 25px;" type="text"/>	Designation of signatory: <input style="width: 100%; height: 25px;" type="text"/>
Signature: <input style="width: 150px; height: 25px;" type="text"/>	Date: <input style="width: 100%; height: 25px;" type="text"/>

On completion of Part 1 and Part 2 in accordance with DEF STAN 05-100, the Authority grants permission for the specified Engine Ground Run under the terms of the Contract which enables the indemnity under DEFCON 638 during the validity of the Engine Ground Running Certificate.

Annex B

(of MOD – Engine Ground Running Certificate)

B.1 Instructions For Use Of Engine Ground Running Certificate

B.1.1 Defence Standard 05-100 controls the preparation and authorisation of an EGRC. A valid EGRC establishes an Authorised Flight under DEFCON 638.

B.1.2 The contractor is to raise each certificate locally and give it a serial number, complete Part 1, and when authorised under Part 2 by the required signatories distribute as follows:

Original Retained by the contractor;

First Copy To the Authority's Authorised Representative, when requested.

B.1.3 The contractor may reproduce the EGRC template electronically (or by other means). The contractor shall ensure that any reproduction is double sided, including these instructions for use and that all copies are accurate and legible. No one may alter a certificate. In the event of an error, the contractor shall cancel the certificate and retain the cancelled copies for record purposes. If the contractor produces EGRCs electronically, they must contain original (manuscript) signatures and not electronically generated or reproduced signatures.

B.1.4 Prior to submission of the Engine Ground Running Certificate, the contractor shall make checks for cleanliness of the engine and jet pipe installations (where applicable) and in particular of the air intakes and adjacent aircraft structure.

B.1.5 The contractor shall raise a further EGRC if the engine is removed and refitted or when the engine serial number / airframe serial number combination changes.

B.1.6 If the Authority provides an engine as Government Furnished Equipment (GFE) a copy of the authorised EGRC is to be sent to the Authority's Authorised Representative when requested, prior to the initial Engine Ground Run.

B.1.7 When a certificate becomes invalid for any reason prescribed in **Annex B.2** of Def Stan 05-100, the contractor shall issue a new certificate to authorise succeeding Engine Ground Runs. The contractor shall record the reasons for the invalidity and immediately advise the Recognised FAC Signatory concerning the circumstances. The contractor shall advise the Authority's Authorised Representative of those reasons on request.

B.1.8 Both the Recognised FAC Signatory and the Authority's Authorised Representative shall sign Part 2 of an EGRC for the Initial Engine Ground Run of an experimental, prototype or development aircraft and the Initial Engine Ground run of a new aircraft type or aircraft mark number.

B1.9 The contractor shall complete all relevant parts of the EGRC.

Annex B

(of MOD – Engine Ground Running Certificate)

B.2 Validity Of Engine Ground Running Certificate

B.2.1 Engine Ground Running shall be conducted by appropriately qualified contractor personnel who have been approved for this activity. If during ground running there is any possibility of the aircraft developing lift then a pilot approved for the type of aircraft shall carry out the Engine Ground Run. Where the Engine Ground Run may result in or require aircraft lift then a FAC should be used and not an EGRC.

B.2.2 Each authorised EGRC will remain in force until the purpose for which it was issued has been served. If the contractor requires the running of an installed engine for any purpose other than that specified on the EGRC, the contractor shall make a further application.

B.2.3 The required signatories have the discretion to withhold, or withdraw their authorisation for engine ground running at any time.

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Annex C

MOD – FLIGHT AUTHORISATION CERTIFICATE FOR A FERRY FLIGHT FROM A SERVICE UNIT BY A CONTRACTOR

To be completed in accordance with DEF STAN 05-100. See reverse for instructions for use.

FAC SERIAL No:

PART 1: (To be completed by the Contractor)

Allotment Serial No:

Engine Type(s) & Serial Number(s):

Contract No:

Aircraft Registration No:

Aircraft Type:

The aircraft is required to carry out Ferry flying for the purposes of the Contract.

The Contractor will carry out the Ferry Flight using the following airfield(s):

subject to the following restrictions:

Details of Pilot:

I accept that the aircraft has been inspected, including the engines, engine installations, and instruments and is, based on information supplied to me, fit for the purpose of the intended Ferry Flight. I request permission for the flight to proceed.

Name of Contractor :

Designation of signatory:

Name (print):

Signature:

Date:

PART 2. (To be completed by the Authority's Authorised Representative).

I certify that, subject to the completion of all relevant MOD Form 700 series documentation, and acceptance of the aircraft on the MOD Form 705 by the above nominated pilot, permission is granted to proceed with the Ferry Flight specified at Part 1 above. This FAC will remain valid for the duration of the designated Ferry Flight, unless invalidated under the conditions detailed at Annex C.2 to Defence Standard 05-100.

AUTHORITY'S AUTHORISED REPRESENTATIVE:

Name (print):

Designation of signatory:

Signature:

Date:

Annex C

(of MOD – Flight Authorisation Certificate for a Ferry Flight from a Service Unit by a Contractor)

C.1 Instructions For Use Of Ferry Flight Authorisation Certificate

C.1.1 Defence Standard 05-100 controls the preparation and authorisation of a Ferry Flight FAC. A valid Ferry Flight FAC establishes an Authorised Flight under DEFCON 638.

C.1.2 The contractor is to raise each certificate locally, give it a serial number, complete Part 1, when authorised under Part 2 by the Authority's Authorised Representative and distribute as follows:

Original	To the contractor;
First Copy	To the pilot;
Second Copy	To the Authority's Authorised Representative.

C.1.3 The contractor may reproduce the FAC template electronically (or by other means). The contractor shall ensure that any reproduction is double sided, including these instructions for use and that all copies are accurate and legible. No one may alter a certificate. In the event of an error, the contractor shall cancel the certificate and retain the cancelled copies for record purposes. If the contractor produces FACs electronically they must contain original (manuscript) signatures and not electronically generated or reproduced signatures.

C.1.4 When a certificate becomes invalid for any reason prescribed in **Annex C.2** of Def Stan 05-100, the contractor shall issue a new certificate to authorise succeeding flights. The contractor shall record the reasons for the invalidity and immediately advise the Authority's Authorised Representative concerning the reasons for the invalidity.

C.1.5 Where the aircraft is to be piloted by one of the contractor's approved pilots it is permissible to enter the words "Pilot approved for the type and task" in the field allocated for the pilot's details. Service pilots who are on long or short term loan/attachment to a contractor for flying duties are to be authorised by the Head of Flying under the contractor's arrangements. Therefore, Service pilots may be regarded in the same manner as contractor's pilots, and the FAC may be endorsed as for contractor's pilots.

C.1.6 When the aircraft is to be collected from a MOD Service Unit, The Authority's Authorised Representative is to endorse Part 2 of the Ferry FAC on the basis that the MOD Service Unit has prepared the aircraft for flight.

C.1.7 When the aircraft is to be collected from another contractor for a contracted Ferry Flight, the Ferry Flight is to be authorised by the use of the Flight Authorisation Certificate (see Annex A).

C.1.8 The contractor shall complete all relevant parts of the Ferry Flight FAC.

Annex C

(of MOD – Flight Authorisation Certificate for a Ferry Flight from a Service Unit by a Contractor)

C.2 Validity Of Flight Authorisation Certificate (Ferry Flight From MOD Service Unit)

C.2.1 The Ferry Flight FAC shall apply to only one aircraft identified by the registration number of that aircraft. The contractor shall ensure that the Authority has formally allotted the aircraft for the purpose of the contract.

C.2.2 The validity of the Ferry Flight FAC applies only to the designated Ferry Flight.

C.2.3 If an unscheduled diversion is necessary, the Ferry Flight FAC will remain valid for the onward completion of the Ferry Flight only if MOD personnel complete any flight servicing or replenishment at the diversion airfield, where those MOD personnel:

- a) may include Service pilots on loan / attached to the contractor;
- b) are specifically authorised to undertake flight servicing on-type, and
- c) carry out any work in accordance with JAP 100A-01.

In all other instances a FAC (**Annex A**) will be required for the continuation Ferry Flight.

C.2.4 When authorised by the Authority's Authorised Representative, the Ferry Flight FAC will remain in force for the period stated on it or until:

C.2.4.1 The aircraft is to be flown for any purpose other than that stated on the Ferry Flight FAC; or

C.2.4.2 The aircraft is involved in an 'occurrence' as defined in JSP 551 Volume 1.

C.2.5 The respective IPTL or delegated representative as the Authority's Authorised Representative has the discretion to withhold, or withdraw authorisation for flight at any time.

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Kentigern House

65 Brown Street

GLASGOW

G2 8EX

DStan Helpdesk

Tel: 44 (0) 141 224 2531/2

Fax: 44 (0) 141 224 2503

Internet e-mail: enquiries@dstan.mod.uk

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