

<p>Irish Aviation Authority The Times Building 11-12 D'Olier Street Dublin 2, Ireland www.iaa.ie</p> <p>Safety Regulation Division</p>	<p>Údarás Eitlíochta na hÉireann Foirgneamh na hAmanna 11-12 Sráid D'Olier Baile Átha Cliath 2, Éire</p> <p>Rannán na Rialachán Sábháilteachta</p>	<p>AERONAUTICAL NOTICE</p> <p>No. A.37</p> <p>ISSUE 04</p> <p>DATE 01.11.19</p>	
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PAINTING OF AIRCRAFT

The Irish Aviation Authority in pursuance of Articles 17 and 31 of the Irish Aviation Authority (Airworthiness of Aircraft) Order, 1996, (S.I. No. 324 of 1996), as amended by Irish Aviation Authority (Airworthiness of Aircraft) (Amendment) Order S.I. No. 102 of 1997, as amended by Irish Aviation Authority (Airworthiness of Aircraft) (Amendment) Order S.I. No 684 of 2003, hereby directs that, where there are no corresponding and applicable provisions under Commission Regulation (EU) No. 2018/1139 as amended:

1. Satisfactory maintenance quality control shall be exercised over the painting of the exterior of Irish registered aircraft issued with a Certificate of Airworthiness or Flight Permit. The term painting in this context embraces the associated process of stripping and such terms as refinishing and refurbishing.
2. An aircraft as defined in paragraph 1, which has its external finish substantially altered, shall have that work done in accordance with the requirements of the Notice.
3. The Owner or Operator of the aircraft and the Approved Maintenance Organisation concerned shall assess the proposed painting task for its airworthiness implications, taking into account the aircraft manufacturer's published requirements and precautions in addition to the content of paragraph 6, and should make a decision as to the need for a Certificate of Release to Service (CRS).

3.1 When a CRS is judged to be necessary, the signatory to the CRS shall take responsibility for the whole process and should, therefore, assess the extent of the work to establish the need to:

- a) Carry out on-site supervision including stage inspection.
- b) Brief painting work team to avoid any airworthiness hazard, particularly where significant problems could be concealed by subsequent work processes.
- c) Ensure that any task carried out is adequately defined by documented process specification containing sufficient information to control the procedure.
- d) Ensure that all necessary guidance material, including the aircraft manufacturer's published data and the paint manufacturer's instructions are provided.
- e) Anticipate potential problems resulting from partial restoration which could mean additional paint weight in significant areas and the need for balancing of control surfaces.
- f) Make provision to rectify any corrosion detected following paint removal.
- g) Ensure the restoration of corrosion inhibiting compounds where washing or use of solvents or other paint removal techniques may have removed them in areas adjacent to those being repainted.

Note: It may benefit the aircraft owner to anticipate any scheduled structural inspections including Non-Destructive Inspections, which could be better accomplished following the paint removal.

4. When the need for a Certificate of Release to Service has been judged necessary under paragraph 3 of this Notice, for an aircraft which has been externally painted or had some significant change to its finish such as paint removal and subsequent polishing, then a CRS shall be issued upon completion of the process (see paragraph 6).

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5. The Irish Aviation Authority (hereinafter referred to as the IAA) has not granted to any organisation at this time specific approval for the painting of aircraft. Therefore, specialist painting organisations will not be entitled to issue any certification in respect of the airworthiness status of an aircraft following painting, unless those organisations also hold an approval for aircraft maintenance in which case an appropriately designated signatory may certify the task.

5.1 A licensed aircraft engineer holding the relevant aircraft type rating has authority to issue a CRS for the satisfactory completion of the external finish.

5.2 Any other signatory will require direct IAA authorisation, other than an authorised inspector within an approved under Article 25 of the Irish Aviation Authority (Personnel Licensing) Order, (SI 333 of 2000).

6. **ADDITIONAL INFORMATION**

6.1. Examples of likely damage and hazards which must be avoided include

a. Damage caused during preparation work which could adversely affect the structural integrity of the aircraft, such as:

- * reduction in fastener head by uncontrolled use of power tools and abrasive media;
- * surface scratching by use of unsuitable paint scrapers;
- * degrading of composite or plastic surfaces by abuse of particle blasting techniques; or
- * use of incorrect chemical paint strippers.

b) Damage to transparencies, composites and sealants by solvent and paint removers, due to inadequate protection and/or the retention of these products in cervices.

c) Inadvertent deletion of placards and markings, failure to renew them, or failure to comply with the required specification for, e.g. registration marks, mandatory door markings and break in zone identification.

d) Blockage of vents drains and other openings by debris, masking tape and residues of paint remover, paint or particle blast material. The possible ingress of water into fuel tanks through vent apertures or filler cap seals when using high pressure hoses for washing down.

e) Loss of correct mass balance moments on flight control surfaces.

f) Uncontrolled variations to aircraft basic weight.

g) Variation to surface profile and aerodynamic smoothness at critical points such as surface

leading edges, by the uncontrolled use of fillers or excessive paint thickness.

h) Inadequate knowledge of the manufacturers finishing schemes for antennae and radomes.

i) For fabric coverings, special procedures, which ensure proper adhesion and protection from the effects of ultraviolet light. Aggressive removal of the old finish may cause fabric damage. The exposed fabric should be assessed for its serviceability prior to refinishing. The advice published by the manufacturer of synthetic fabric would have to be made available and complied with in full as well as that of the aircraft manufacturer.

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j) The effects of excessive paint thickness on the application of non-destructive testing techniques using eddy current and ultrasonic methods.

6.2. Examples of finishing work that would require the issue of CRS:

- a) Complete repainting from bare metal or fabric or overcoating an existing finish.
- b) Reversion from paint finish to polished metal.
- c) Repainting or reversion to bare metal on flying control surfaces or supercritical lifting surfaces.
- d) Extensive polishing of bare metal finish using abrasive polishes where skin thickness or fastener head dimensions are critical, particularly where polishing is to be a repetitive requirement.
- e) Finishing of radomes, antennas and composite materials used in primary and secondary structure.
- f) Painting in areas involving critical orifices or mandatory markings.
- g) Any alteration to the finish of helicopter main rotor and tail rotor blades or any other critical parts.

NOTE

It is not intended that the requirement for the issue of a CRS should include minor repairs to surface finish where airworthiness implications are minimal.

The above list of examples is not definitive. Where any doubt exists, the procedures of paragraph 3 shall be followed.

This notice replaces Aeronautical Notice A.37 at issue 03 which should be discarded.

**Chief Executive
Irish Aviation Authority**