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<b>Title</b>	Rotorcraft gearbox loss of lubrication
<b>NPA Number</b>	NPA 2017-07

**UK CAA** (European.Affairs@caa.co.uk) has placed **5** unique comments on this NPA:

Cmt#	Segment description	Page	Comment	Attachments
36	(General Comments)	0	<p><b>Page No:</b> Whole document.</p> <p><b>Paragraph No:</b> Whole document.</p> <p><b>Comment:</b> UK CAA fully supports this NPA, as it should lead to an improvement in the reliability of gearboxes and allow increased diversion margins in time to avoid ditching.</p>	
37	3.1.1. Draft resulting text: CS-27 - BOOK 1	7	<p><b>Page No:</b> 7</p> <p><b>Paragraph No:</b> 3.1.1, Draft Resulting Text CS-27 Book 1</p> <p><b>Comment:</b> This applies the CAT A requirements of CS 29 to CS 27 as the means of compliance. CS 29 aircraft are now subjected to the Maintenance Steering Group-3 (MSG-3) process as part of the certification approval of their instructions for continued airworthiness (ICA). This can develop maintenance tasks for elements of the 30 minute run dry. This may not be the case for CS 27 certified aircraft.</p>	
38	3.1.2. Draft resulting text: CS-29 - BOOK 1 - CS 29.927	8 - 9	<p><b>Page No:</b> 8 and 9</p> <p><b>Paragraph No:</b> 3. Amend CS 29.927, sub-paragraphs (c) (1), (c) (2), (c) (3) and (c) (4)</p> <p><b>Comment:</b> The final format of revised text intends that the amendments of 29.927 (c) (1) and (2) are both applicable to Category A, although only "Category A" is specified in subparagraph (c) (1), and similarly for 29.927 (c) (3) and (4) regarding "Category B " It would be more explicit if the accompanying texts of 29.927 (c) (2) and (c) (4) respectively said "Demonstration of capability for Category A must include ...," and "Demonstration of capability for Category B must include ....," .</p> <p><b>Justification:</b> Clarity.</p> <p><b>Proposed Text:</b> Amend as follows:</p> <p>(c)(2) Demonstration of capability for Category A must include a test...</p> <p>(c)(4) Demonstration of capability for Category B must include a test...</p>	
39	3.1.2. Draft resulting text: CS-29 - BOOK 2 - AMC 29.927	10 - 21	<p><b>Page No:</b> 11</p> <p><b>Paragraph No:</b> AMC 29.927, sub-paragraph (a)(4), final sentence</p> <p><b>Comment:</b> It is suggested that reference is also made to input and</p>	

			<p>output seals specifically.</p> <p><b>Justification:</b> These are normally the higher probable areas of leakage.</p> <p><b>Proposed Text:</b> Amend final sentence of sub-paragraph (a)(4) as follows:</p> <p>"...A loss of lubrication may result from internal and external failures. Failures include, but are not limited to: oil lines, fittings, <b>input and output seals</b>, seal plugs, sealing gaskets, valves, pumps, oil filters, oil coolers, accessory pads, etc."</p>	
40	3.1.2. Draft resulting text: CS-29 - BOOK 2 - AMC 29.927	10 - 21	<p><b>Page No:</b> 17</p> <p><b>Paragraph No:</b> AMC 29.927, sub-paragraph (i) (3)</p> <p><b>Comment:</b> The proposed AMC 29.927 material includes text concerning a "reduction factor based on the condition of components at the end of the certification test". Confusion could occur by calling this a "reduction factor", as it is more precisely known as "reduction decrement" in mathematical terms, i.e. a direct subtraction of time of the certified run dry declared capability rather than a factoring. Factoring implies the multiplication or splitting into multipliers the former effecting a scaling, such as "x 1.5". Use of the term "decrement" should reduce confusion with factoring. (Note the application of this "reduction factor" or "reduction decrement" can be seen under the formulae that are presented later in the AMC - i.e. use of the term "-T<sup>P</sup>" in the formula on page 18).</p> <p><b>Justification:</b> Clarity. To reduce confusion over use of the term "factor" which should strictly be termed a "decrement" in this particular application.</p> <p><b>Proposed Text:</b> Replace "factor" by "decrement" as shown below and when applying fixed term reduction of 2, 5 or 10 minutes as applicable to the respective Class 1, ("Good"), Class 2, ("Fair") and Class 3 ("Imminent failure") condition of components at the end of the certification test, e.g: -</p> <p>(i)(3)        Reduction <del>factor</del> <b>decrement</b> based on the condition of components at the end of the certification test</p>	