

**Clearance Record
DOCUMENT COMMENT LOG**

Originating Office: AIR-130	Document Description: TSO-C146d/C205 Field Review	Project Lead: Kevin Bridges	Reviewing Office:	Date of Review:
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Comment Number	Page & Paragraph	Comment	Rationale for Comment	Recommendation	Disposition
1. ANE-150		What Happens when a TSO-C146d applicant uses a CCA functional sensor that is not TSO-C204 approved (TSO process is purely elective)? Shouldn't TSO-C146d spell out the FAA's expectation for this scenario?	Need to explain what FAA expectation is if TSO'd CCA is not used.	Add a paragraph describing what qualifications need to be done if a TSO'd CCA is not used.	<p>Partially Accepted. An applicant not taking compliance data credit for a TSO'd CCA in their TSO-C146d Class Delta-4 application is responsible for developing the full range of compliance data to receive TSOA under TSO-C146d Class Delta-4. This is what happens today for any TSO-C146c Class Delta-4.</p> <p>TSO-C146d, section 3 second paragraph has been changed as follows for clarification:</p> <p>Class Delta-4 applicants have the option to use a TSO-C205 Delta-4 CCA functional sensor. Applicants choosing to use a TSO-C205 Delta-4 CCA can take certification compliance credit by virtue of the TSO-C205 TSOA for:</p>

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2. ACE-100	TSO-C204 Page 1 Para. 1. Purpose	<p>The 2nd part of the Purpose paragraph may be re-phrased to improve readability.</p> <p>“TSO-C204 encompasses the requirements in TSO-C146d, but does not include credit for all of the MPS performance tests necessary in the end-use equipment. TSO-C204 is intended as a means for end-use equipment manufacturers incorporating the CCA to streamline their TSO-C146d application for a Class Delta-4 sensor by receiving partial certification credit for the Delta CCA functional sensor.”</p>	Clarity - editorial	<p>Proposed text change –</p> <p><i>“TSO-C204 encompasses a subset of the TSO-C146d requirements, and provides a means to allow end-use equipment manufacturers to receive certain certification credit when incorporating the CCA in their TSO-C146d application for a Class Delta-4 equipment.”</i></p>	<p>Partially Accepted. The suggested re-write can be misinterpreted because the MOPS performance requirements in DO-229D section 2.3 are fully satisfied. That is, TSO-C204 is not a subset of the performance requirements.</p> <p>The sentences in question have been changed as follows:</p> <p>TSO-C204 is intended as a means for end-use equipment manufacturers incorporating the Delta-4 CCA to streamline their TSO-C146d application for a Class Delta-4 sensor by using the TSO'd Delta-4 CCA for partial certification credit.</p>
3. ACE-100	TSO-C204 Page 4, Para. 5. Application Data Requirements	<p>Section 5, Application Data Requirements, of TSO-C205 consists of a paragraph, g, that makes references to AC 23.1309-1() and acknowledges design assurance levels per aircraft type.</p> <p>g. “If the software qualification limits eligibility of the equipment</p>	Should the same language be included in TSO-C205??	Propose to include the same consideration for TSO-C205	<p>Partially Accepted. The comment is correct, but is for TSO-C204, not C205. That is, the CCA TSO for SBAS Class Delta-4 does have a hazardous failure condition where software level relief can be granted. However, the CCA for ABAS is only a major</p>

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		to certain aircraft types, identify the qualification level, and that the equipment is not eligible for all aircraft types. For example, AC 23-1309-1, <i>Equipment, Systems, and Installations in Part 23 Airplanes</i> , states that RTCA/DO-178C Level C software may be associated with a <i>hazardous</i> failure condition for certain aircraft types. Identify other limitations applicable to the failure condition classification--- for example, that two installed units are necessary”			failure condition where there is no software level relief granted by AC 23-1309-1E. The suggested paragraph has been added to the SBAS Class Delta-4 CCA TSO.
4. ACE-100	Title Page	At this time, there are three unit-level TSOs being revised, and three component-level TSOs being created (each component-level TSO is referenced by one of the corresponding unit-level TSOs). The numbering sequence of the component-level TSOs does not follow ascending sequence of the corresponding unit-level TSOs.	It would make intuitive sense for the component-level TSOs to follow the same ascending sequence as their respective unit-level TSO.	Re-number CCA TSO-C204 to TSO-C205. Note: Reference Trackers: (1) #2787 (TSO-C196b & TSO-C205) and (2) #2788 (TSO-C145d & TSO-C206)	Accepted. The CCA TSO numbering has been changed to ascending order consistent with the associated GNSS TSOs: C204 with C145. C205 with C146. C206 with C196.