

# CONSOLIDATED COMMENTS MATRIX

## Proposed Appendix to TSO C166A for 1090ES

#	Reviewer Name/ Org./Company	Change #	COMMENT / RATIONALE	PROPOSED RESOLUTION(S)
1	Don Walker /Honeywell	(1.11) 2.2.10.6.3	This performance is far poorer than the Honeywell proposed reasonableness check.	Please reword this requirement such that it clearly states this is the minimum requirement and allows other implementations.  <b>WG-3 points out that these changes are targeted for the MOPS, which is by definition a “minimum” set of requirements. Manufacturers are free to code a better test that the one specified.</b>
2	Bob Burns L-3/Titan FAA Tech Center	(1.11) 2.2.10.6.3	In 2.2.10.6.3 a. the last part of the last sentence should be modified.	Insert the word ‘received’ so that the sentence reads ...from the previously received Position Message.  <b>WG-3 agrees and the change will be made.</b>
3	Bob Burns L-3/Titan FAA Tech Center		Q: Will a message that fails the reasonableness test still trigger a reset of the track timer for even/odd message receptions?	<b>WG-3 requests that Gary and Tom discuss this issue with Bob to clarify his question. After discussion, we added a step to the test procedure in change (1.20) for §2.4.10.6.3 to test to ensure that a rejected message does not reset the 30 second reasonableness test timer.</b>
4	J. Stuart Searight, FAA, ATO-P		<p>A message has been defined in the 1090ES SARPs which contains TCAS RA information in the ES Status Message (TYPE Code=28). This is similar to the RA downlink, but is to be automatically broadcast as an On-Condition Message without first being interrogated by the ground. The definition of this Message should be considered for inclusion in the proposed TSO Appendix. Since ADS-B standards already have status bits for TCAS and the occurrence of an RA, and the RA information is provided to the transponder, this should not introduce any interface issues for ADS-B.</p> <p>The rationale for including the definition of this message includes the envisioned use of TCAS RA information within the current NGATS Concept of Operation by either ATC automation or the display of TCAS RAs on the controllers display. Also, future efforts examining both separation violations by ATO-S and TCAS performance by the TCAS Program Office could leverage this capability as part of their monitoring efforts.</p> <p>This comment has been requested by ATO-P, System Engineering.</p>	<p>Consider inclusion of the definition, requirement and format for the broadcasting of the TCAS RA message as defined in the draft of the ICAO 1090ES SARPs Technical Manual, Doc 9871.</p> <p>If not included in the proposed Appendix to TSO C166A, WG3 should accept an issue paper on this message for future DO-260B work. Issue Paper should include what type of analysis is required to determine expected delivery time from RA issuance to ATC automation and to demonstrate operational usefulness of this data for ATC automation or controller.</p> <p><b>After considerable discussion, WG-3 agreed that the addition of the specification for the TCAS RA Message, along with all of the associated changes which would identify the rates, input and other changes necessary to totally specify the addition of this Message, would not be accomplished at this time. It has been requested that a discussion between Steve Van Trees and Jim Williams take place in order to help come to a decision on whether or not there is a requirement to add this change prior to the actual publication of DO-260B, which will be several years away.</b></p>

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5	Ron Staab	(1.1)	The term “maximum operating range” should be defined.	<b>WG-3 agrees that a definition is a good idea and that it will be added to the TSO Appendix as a change to DO-260A Appendix B, section B.2. The agreed upon definition is: “The maximum range at which it is expected that the ADS-B Airborne System will provide the performance necessary to meet the ADS-B MASPS (RTCA/DO-242A) requirements.”</b>
6	Ron Jones, FAA	(1.14)	The reference to the 88-bit field should include the DF, CF, AA and ME fields that should be passed through to the applications.	<b>WG-3 agrees. This was basically a typographical error and it will be expanded to make it clear that the 88 bits includes the DF, CF, AA and ME fields.</b>
7	Bob Grappel MIT Lincoln Lab	(1.11) 2.2.10.6.3	The FAA Surveillance and Broadcast Services Specification Team pointed out that there was a need to qualify the word “identical“ in the comparison of the two global decodes to “identical within one LSB.”	<b>WG-3 agrees and the change will be made in the third paragraph of §A.1.7.10.2 to add the suggested phrase. The addition also needs to be made to subparagraph “c” of §2.2.10.6.2 to clarify.</b>