

COMMENT RESOLUTION MATRIX: Navigation Data Messages Overview G1.0.2
October 2018

Page	Section	Line	Type	Comment/ Rationale	Source of Comment (Name/Agency)	Suggested Disposition	Disposition (Completed by Principal Editor)
				ALL PAGE/SECTION/LINE REFERENCES ARE TO CHANGES TRACKED VERSION.			
1-1	1.1	para 1, last line	ed	Missing "oxford comma"	David S. Berry / NASA	From: "... time systems, coordinate frames and element sets" To: "... time systems, coordinate frames, and element sets".	Accepted
1-1	1.1	para 2, line 2	ed	Missing "oxford comma"	David S. Berry / NASA	From: "... information, pointing and reentry" To: "... information, pointing, and reentry".	Accepted
1-1	1.1	para 2, line 2	ed	Inconsistent spelling. There is one instance of "reentry" and 13 instances of "re-entry" in the document.	David S. Berry / NASA	From: "reentry" To: "re-entry"	Accepted
2-2	2.2.2	para 2, next to last line.	ed	In "Orbit determination and attitude determination" next to last line, word choice of "imminent" is odd. The prediction referred to can also be medium or long term.	David S. Berry / NASA	Remove "imminent".	Accepted, with additional mods to sentence
2-3	2.2.3	para 2, last line	ed	I think "model solution" should just be "model", consistent with the preceding text in the paragraph.	David S. Berry / NASA	From: "model solution." To: "model."	Accepted
2-4	(d)(1)	2	ed	Redundant phrase. The "if necessary" here is redundant, since item (d) starts with the qualifier "If necessary,"	David S. Berry / NASA	From: "... trajectory, if necessary, to meet..." To: "... trajectory to meet..."	Accepted
2-4	(d)(2)	1-2	ed	Redundant phrase. The "if necessary" here is redundant, since item (d) starts with the qualifier "If	David S. Berry / NASA	From: "... attitude, if necessary, to meet..." To: "... attitude to meet..."	Accepted

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				necessary,"			
3-1	3.2	last line	ed	In the definition of "spacecraft", the term "spacecraft" should be in quotes. This is standard when discussing attributes of a term rather than just using it in a sentence.	David S. Berry / NASA	From: The term spacecraft also To: The term "spacecraft" also	Accepted
3-2	3.2	line 5	ed	On "ground stations and space networks", the word "facilitate" seems insufficient... they really "enable".	David S. Berry / NASA	From: "facilitate the" To: "enable"	Accepted
3-3	3.3.1	para 1, line 4	ed/te	Word choice.	David S. Berry / NASA	From: "... using separate CCSDS standards." To: "... using CCSDS standards that are not in the flight dynamics domain."	Accepted
3-3	3.3.1	para 1, line 7	ed	Word choice	David S. Berry / NASA	From: "promoting some of" To: "utilizing"	Accepted
3-3	3.3.1		ed	On "Ground-to-ground", "Ground-to-flight", "Flight-to-ground", and "Flight-to-flight", the word "any" seems superfluous.	David S. Berry / NASA	Remove "any" in these definitions. From: "any two" To: "two" From: "any one" To: "one"	Accepted. "any one" changed to "a" for consistency with remainder of sentence
3-3	3.3.1	para 2, line 1	ed/te	A qualifier is needed. (BUT I'm wondering if in the TDRSS case we may have flight-to-flight scenarios, in which case the whole first sentence is false.	David S. Berry / NASA	From: "... navigation data is only exchanged..." To: "... navigation data covered by CCSDS standards is only exchanged..."	Accepted – with addition of 'flight dynamics'. The TDRS as flight-to-flight is possibly true, (GSFC most likely suspect), although does be a

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							"relay only" make for a qualifier case?
3-3	3.3.2	para 2, line 1	ed	A term I'm not familiar with is used... what does "... constraints on APdata rates..." mean?	David S. Berry / NASA	This looks like it could be a typo. If so, just remove the "AP". Or, if it means "application data", spell it out.	Accepted. Bizarre, I have no idea how "AP" became an insert here.
3-3 3-4	3.3.2		ed	The first of the "three general characteristics" does not have a numbering attribute, but the second and third do, i.e., the first doesn't have a letter, but the second has "a" and the third has "b"	David S. Berry / NASA	Either make the first in the list of 3 have "a)", or remove the numbering "a)" and "b)" from the second and third in the list.	Accepted. Added a) to first paragraph.
4-1	4.1	para 5, lines 3-9	ed	The section beginning in line 3 with "The navigation data messages..." and ending in line 9 with "... relative to an external coordinate frame" seems redundant with earlier material from Section 2.	David S. Berry / NASA	I would remove the redundant text.	Accepted.
4-3	4.2.1	list item 4	ed	Has an unnecessary closing parenthesis	David S. Berry / NASA	From: "Ranging)" To: "Ranging"	Accepted
4-3	4.2.1	first full para line 1-2	ed	Redundant phrase.	David S. Berry / NASA	From: "... contains keywords selected from a large number of keywords that qualify..." To: "... contains keywords that qualify..."	Accepted
4-4	4.2.2	para 4	ed	Unnecessary text	David S. Berry / NASA	From: "One feature of the ODM is that via the OMM it includes..." To: "One feature of the OMM is that it includes..."	Accepted

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4-4 4-5	4.2.2	para 4	ed/te	The paragraph refers to the OMM after it was already mostly discussed in paragraph 2.	David S. Berry / NASA	Move text: "One feature... (see reference [10])." to end of paragraph 2 in this section.	Accepted
4-5	4.2.2	1	ed	Choice of article	David S. Berry / NASA	From: "The 6x6 covariance matrix..." To: "A 6x6 covariance matrix..."	Accepted
4-5	4.2.2	para 3, line 14	ed	Incorrect organization name.	David S. Berry / NASA	From: "Collision Avoidance Risk Assessment" To: "Conjunction Assessment Risk Analysis"	Accepted. Changed to be an organization vice a 'process'
4-5	4.2.2	para 3, line 15	ed	Extra "and".	David S. Berry / NASA	From: "and the Space Data Association" To: "the Space Data Association"	Accepted
4-5	4.2.2	para 3, line 15	ed	Typo	David S. Berry / NASA	From: "thehe Magnetospheric" To: "the Magnetospheric"	Accepted
4-5	4.2.2	para 3, line 17	ed	Incorrect use of possessive	David S. Berry / NASA	From: "OEM's" To: "OEMs"	Accepted
4-5	4.2.2	para 4	ed	Updated status	David S. Berry / NASA	From: "At present, it appears that there will be..." To: "There will be..."	Accepted with mods.
4-6	4.2.3	para 7	ed	Updated status	David S. Berry / NASA	Add "There will be an additional message"	Accepted with mods.

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		(last)				added to the ADM, but it is premature to provide details."	
4-8	4.2.5	para 1 (first full), line 3	ed	Use semi-colon to separate list items that contain commas.	David S. Berry / NASA	From: "... a spacecraft, or an instrument, sensor, ..." To: "... a spacecraft; or an instrument, sensor, ..."	Accepted.
4-9	4.4	2-4	ed/te	The statement starting with "NDMs do not cover..." and ending with "... telemetry to the ground." is really more of a note that applies directly to the second example. So I would move it as a "Note:" right after the first paragraph that follows Figure 4-1.	David S. Berry / NASA	Consider moving the statement per comment.	Accepted
4-10	4.4	para 1, line 5	ed	Awkward usage.	David S. Berry / NASA	From: "... a CDM gets generated..." To: "... a CDM is generated..."	Accepted
4-1	4.4	para 1, Fig 4-1	ed/te	OPTIONAL: I know that the diagrams may present issues, however, the first example and the figure would be better if they referred to "OEMs" and "OEM" instead of "ODMs" and "ODM". The function "Perform Conjunction Determination" would be better as "Perform Conjunction Assessment". The text and diagram are not WRONG as written, but an OPM or OMM would have to be propagated, and we have used the term "conjunction	David S. Berry / NASA	Consider, if possible.	Accepted – Final images in work (temp image inserted into doc)

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				assessment" numerous times previously.			
4-12	4.5.1	para 1, last line	ed	Word choice.	David S. Berry / NASA	From: "usually equivalent to" To: "usually identical to"	Accepted
4-13	4.5.2	para 1, next to last line	ed	Awkward usage.	David S. Berry / NASA	From: "... all the NDMs gets included..." To: "... all the NDMs is included..."	Accepted
4-13	4.5.2	para 2, line 4	ed	Awkward usage.	David S. Berry / NASA	From: "... what time system gets used..." To: "... what time system is used..."	Accepted (wow, there were a LOT of 'gets' in this document)
4-13	4.5.2	para 2, next to last line	ed/te	You may want to replace [17] with [21] given our migration to the SANA Registry.	David S. Berry / NASA	From: "[17]" To: "[21]"	Accepted
B-1	Annex B	CAR A	ed/te	Incorrect organization name for the acronym CARA	David S. Berry / NASA	From: "Collision Avoidance Risk Assessment" To: "Conjunction Assessment Risk Analysis"	Accepted