| **Page** | **Section** | **Line** | **Type** | **Comment/ Rationale** | **Source of Comment (Name/Agency)** | **Suggested Disposition** | **Disposition**  **(Completed by Principal Editor)** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| G-7 | G2 | 1 | ed | PROBABILITY\_OF\_BURN-UP deviates from Table 3-3 | DLR/GSOC | Correct on page G-7 | Done |
| G-7 | G2 | 3 | ed | PROBABILITY\_OF\_BREAK-IUP deviates from Table 3-3 | DLR/GSOC | Correct on page G-7 | Done |
| G-7 | G2 |  | ed | IMPACT\_n\_CROSS\_TRCK deviates from Table 3-3 | DLR/GSOC | Correct on page G-7 | Done |
| F-1 | F | 1 | Ed | In the first two paragraphs there are several references to tables in the document, the word “table” should have a capital “T”. | B. Swinburne/Airbus | Change “table” to “Table”. | The CCSDS technical editor wants those as lowercase, and will change them to lowercase anyway. |
| 3-8 | 3.5.2 | 10 | TE | In the case of fragmentation(s), what should be considered as NOMINAL\_IMPACT\_EPOCH? | D. Oltrogge/AGI | Is this the largest fragment by mass? Etc. You explicitly state in 3.5.17 that the nominal location corresponds to the highest probability of fragments impacting there. I presume that the epoch corresponds to this (?) | The NOMINAL\_IMPACT\_EPOCH is an optional keyword. In the case fragmentation is predicted during re-entry, how it is used would depend on the RDM provider. They could just provide the \_START/\_END interval covering all fragments. |
| 3-8 | 3.5.2 | 11,12 | TE | Is the start/end of impact correspond to some confidence %, or is this 0th and 100th percentile? | D. Oltrogge/AGI | May want to explicitly state. | This was deliberately left unspecified, as different re-entry prediction systems use different values for this (end empirical approaches are more YOLO than one would expect). This is something I would plan to address in the RDM v2, as I think it might make sense to make the epochs tied to the impact location intervals given. |
| 3-12 | 3.5.2 | 3 | TE | Is THRUST\_ACCELERATION meant to be directional? Is it only meant to be in-track? What happens if the user intents to combine in-track and cross-track (or more likely, radial)? | D. Oltrogge/AGI | Suggest clarification. | It is only meant to be in-track, as:  This will affect orbit lifetime more (it is the propagation up to the re-entry epoch as stated in the description, not ground impact).  This is what the CDM has (I am not sure why the CDM is limited to in-track though). If the user wants to exchange detailed thrust information, I think they should use an OCM. |
| 3-12 | 3.5.2 | 6,7 | TE | Unclear if TIME\_LASTOB\_START and \_END are epochs, or time since epoch, or what. | D. Oltrogge/AGI | Suggest we find good solution and make consistent between RDM and ODM. At a minimum, this needs an example, and needs to clearly show if these are epochs or relative times or what. | They are epochs and work in the same ways as the CDM v1.0:  *Formatting rules are specified in 5.3.3.5*  That number paragraph specifies CCSDS time strings. |
| 3-12 | 3.5.2 | 8 | TE | Unclear in an RDM why “RECOMMENDED\_OD\_SPAN” is useful? | D. Oltrogge/AGI | Consider deleting. | Consistency: I am re-using that block from the CDM. I am wondering why it is useful there. Maybe there was a maneuver in between some tracks? |
| 3-12 | 3.5.2 | 12,13 | TE | “TRACK” is not defined | D. Oltrogge/AGI | Consider defining | Sensor track is defined in annex G as: ***Sensor Track****: A set of at least three observations for the same object, observed by the same sensor, where each observation is within a specified number of minutes (which is dependent on the orbit regime of the object) of the other observations in the track.* |
| 3-13 | 3.5.5 |  | TE | I still find this multiple prediction span use of separate WINDOW keywords unnecessary. This opens the door to having inconsistencies throughout, as you point out in 3.5.7, 3.5.8, 3.5.9. Not clear why you want to introduce this complexity. | D. Oltrogge/AGI | Consider. | The idea was to offer the appropriate units for long-term and short-term prediction. Days can be used for long-term predictions, while an epoch (with fraction of a second precision) can be used for short-term predictions.  The thinking behind this was:  Long term prediction might be used to check that mitigation guidelines are met, or for something predicted to re-enter in 20±4 months. In this case it is more helpful to have the orbit lifetime in days, as an epoch would be too much to interpret (bear in mind the window will still be several months).  For short term prediction, the epoch is actually easier to interpret, as you can use the to-the-second precision and the window will be hours at most.  So, for short-term predictions you will have both a lifetime, in days, and an epoch, as a CCSDS time string. The value of the lifetime conveys whether long or short-term prediction was used. |
| G-4 | G1.5 | 2 |  | Change ‘losses’ to ‘loses’ | Halverson/NASA | fix | Fixed |
| G-7 | G2 |  |  | In the last sentence in ‘IMPACT\_n\_CONFIDENCE …’, starts with ‘Since the probability distribution is skewed …’ Change ‘the method is chosen’ to ‘the method chosen’ | Halverson/NASA | fix | Fixed |
| 1-1 | 1.1 |  | ed | “These messages  can be used”  singular to be preferred as singular is used in previous sentence | Alain LAMY / CNES | “This message can be used” | fixed |
| 1-1 | 1.2 |  | ed | It contains the specifications for an RDM designed …”  What is “it” ? if “it” stands for RDM, the sentence is strange: the RDM contains the specifications for an RDM | Alain LAMY / CNES | Change wording | Changed to “this Blue Book” |
| 1-1 | 1.2 |  | ed | “For an RDM designed for …“ | Alain LAMY / CNES | A RDM ?  (not quite sure) | It’s an RDM. RDM begins with a vowel ‘a’ sound: ar-dee-em. |
| 1-1 | 1.2 |  | ed | “Re-entry data includes remaining …” | Alain LAMY / CNES | include | I think current usage treats data as an uncountable noun with a singular verb. From Wiktionary: *This word is more often used as an uncountable noun with a singular verb than as a plural noun with singular datum. The latter is almost entirely restricted to formal contexts.*  Since native speakers did not complain, I would leave it as is. |
| 1-1 | 1.2 |  | ed | “The CCSDS Navigation Working Group should be  informed of new optional keywords…”  Are these new keywords user-defined keywords? | Alain LAMY / CNES | Replace “new keywords” by  “proposed new keywords” | They are user defined in current use but could become optional RDM keywords in the future (*new optional keywords for possible inclusion in future revisions of the standard*). |
| 1-2 | 1.2 |  | ed | “to the algorithms used to produce the data within”  Within necessary ? | Alain LAMY / CNES | Remove “within” |  |
| 1-3 | 1.5 |  | ed | “The the extent  possible, an effort has been made”  The The ? | Alain LAMY / CNES |  | Fixed to “to the […]” |
| 1-4 | 1.5 | a) | ed / te | “for a circular orbit altitude below 200 km”  Why this information?  Is it always true ? | Alain LAMY / CNES | Remove “(for a circular orbit altitude below 200 km)” | That wording was requested during agency review. The border is a bit fuzzy. If you are GOCE and thrusting, you obviously won’t re-enter in a few days from below 200 km. |
| 1-5 | 1.6 |  | ed | <http://sanaregistry.org/r/organizations/.>  https instead of http ?  (as in reference 8) | Alain LAMY / CNES |  | fixed |
| 2-1 | 2.2 |  | ed | “The RDM is an ASCII format …”  In the CDM (for instance) :  “The CDM is ASCII format encoded” | Alain LAMY / CNES | Remove “an” | I think the ‘an’ is necessary there. |
| 5-1 | 52.2.21 / 5.2.2.2 |  | ed | 5.2.2.1 refer to “spaces”  5.2.22 refer to “blanks”  Use same terminology throughout the book | Alain LAMY / CNES | Use spaces instead of blanks | This is the same in other messages. I did switch 5.2.2.2 to spaces, as all other whitespace characters (apart from line termination) are not allowed. |
| 5-1 | 5.2.2.2 |  | ed / ge | “Only printable ASCII characters…”  EOL characters are not printable so the first sentence is not correct | Alain LAMY / CNES | Change sentence | The requirement makes an explicit exception for line termination characters (emphasis mine):  5*.2.2.2 Only printable ASCII characters and blanks shall be used.* ***Control characters (such as TAB, etc.) shall not be used, with the exception of the line termination characters specified below.*** |
| 5-1 | 5.2.3.1 |  | ed | “A nonempty” | Alain LAMY / CNES | A non empty  (space between non and empty) | Nonempty is a word, per Wiktionary:  **nonempty** (*not*[*comparable*](https://en.wiktionary.org/wiki/Appendix:Glossary#comparable))   1. Not empty, containing something. 2. ([*mathematics*](https://en.wiktionary.org/wiki/mathematics)) Of a [set](https://en.wiktionary.org/wiki/set), containing at least one [element](https://en.wiktionary.org/wiki/element), thereby being distinct from the [empty set](https://en.wiktionary.org/wiki/empty_set). |
| 5-1 | 5.2.3.3 |  | ed | “Blank spaces”  (see comment above) | Alain LAMY / CNES | Replace by “spaces” or whatever word is chosen | Changed to ‘space’ |
| 5-1 | 5.2.3.4 |  | ed | “Blanks” => spaces  (Same as above) | Alain LAMY / CNES |  | This applies to all whitespace characters, not just space. |
| 5-2 | 5.3.2.3 |  | ed / ge | “All header, metadata, and data lines shall use ‘keyword = value’ notation”  Comment lines do not follow this syntax | Alain LAMY / CNES | Add that comment lines are not concerned | This is present in other Blue Books as well. I was under the impression COMMENT is a variation of the KVN. |
| 5-3 | 5.3.2.5 |  | ed | “must not contain blanks”  Blanks or spaces? | Alain LAMY / CNES | Check for “blank(s)” or “space(s)” in whole document and replace by the chosen word / expression | Applies to all whitespace characters, not just space. |
| 5-4 | 5.3.3.3 | e) | ed | “The maximum positive floating point value is approximately 1.798·10\*\*308, with 16  significant decimal digits precision …“  This is not a requirement. It should be a note. | Alain LAMY / CNES |  | That part is in “statement of fact”, rather than requirement language. |
| 5-4 | 5.3.5 |  | ed | “White space shall be retained” | Alain LAMY / CNES | White spaces ? | It refers to ‘white space’ or ‘whitespace’ (from Wiktionary):  Alternative forms  whitespace  Pronunciation  (UK) IPA(key): /ˈwaɪtˌspeɪs/  Rhymes: -eɪs  Noun[edit]  white space (countable and uncountable, plural white spaces)  White area between written characters and graphic regions on a produced page or computer display; blanks and the vertical blank lines in between paragraphs, or other organized rows of text lines (poetry).  (computer science) Any single character or series of characters that represents horizontal or vertical space in typography.  Synonyms  (computer science) whitespace character |
| Viii | Table TOC |  |  | Table E-1 listing does not have the text left justified and also is spread across two lines | [patrick.zimmerman@nasa.gov](mailto:patrick.zimmerman@nasa.gov) | Correct justification and reduce to a single line | The technical editor will fix this in the Blue Book as he re-does all the front matter. I don’t know how to fix it anyway. |
| A-4 | A2.2 |  |  | The word ‘re-entry’ is not hyphenated in the feature description field of item 35. All other cases of re-entry use the hyphen. | [patrick.zimmerman@nasa.gov](mailto:patrick.zimmerman@nasa.gov) | Suggest use of hyphen for re-entry in this description | fixed |
| C-1 | Para 1 | 6 | Ed | Suggest re-organizing the sentence regarding Figure C-2 to match the structure of the prior sentence regarding C-1. So that both have the arrangement:  Figure C-X …, the kind…., and containing…. | [patrick.zimmerman@nasa.gov](mailto:patrick.zimmerman@nasa.gov) | Suggest adjusted sentence of:  Figure C-2 shows a more complex message, the kind of information two Member Agencies might exchange with each other for short-term re-entry predictions and containing the state vector, position/velocity covariance matrix, etc. | fixed |
| C-1 | Figure C-2 |  | Ed | The font size in Figure C-2 is smaller than the font size in the other three figures in Annex C. | [patrick.zimmerman@nasa.gov](mailto:patrick.zimmerman@nasa.gov) | Suggest increasing the font size of the text in Figure C-2 to match the size in the other three figures | Fixed, the technical editor will love that. |
| C-3 | Figure C-3 | 2 | Ed | W3.org hyperlink contains the closing quote mark (“), breaking link and resulting in 404 page not found.  Also, text is a larger font than remainder of message | [patrick.zimmerman@nasa.gov](mailto:patrick.zimmerman@nasa.gov) | Suggest correcting the link and removing the closing quote mark.  Suggest changing link text from TimesNewRoman to CourierNew and reduce to font size 10 | Fixed (I hope) |
| C-3 | Figure C-3 | 7 | Ed | Comment refers to Annex D and Figure D-1, but believe it should be Annex C and Figure C-1 | [patrick.zimmerman@nasa.gov](mailto:patrick.zimmerman@nasa.gov) | Suggest changing Comment to indicate Annex C and Figure C-1 | fixed |
| C-3 | Figure C-4 | 2 | Ed | W3.org hyperlink contains the closing quote mark (“), breaking link and resulting in 404 page not found.  Also, text is a larger font than remainder of message | [patrick.zimmerman@nasa.gov](mailto:patrick.zimmerman@nasa.gov) | Suggest correcting the link and removing the closing quote mark.  Suggest changing link text from TimesNewRoman to CourierNew and reduce to font size 10 | Fixed (I hope) |
| C-3 | Figure C-4 | 7 | Ed | Comment refers to Annex D and Figure D-1, but believe it should be Annex C and Figure C-1 | [patrick.zimmerman@nasa.gov](mailto:patrick.zimmerman@nasa.gov) | Suggest changing Comment to indicate Annex C and Figure C-2 | fixed |
| C-5 | Figure C-4 | 7&8 | Ed | Closing “>” in wrong spot for CZ\_X and CZ\_Y, should be after the units identifier | [patrick.zimmerman@nasa.gov](mailto:patrick.zimmerman@nasa.gov) | Suggest moving closing”>” for the CZ\_X and CZ\_Y lines to after the units identifier | fixed |
| D-1 |  |  |  | Acronym ordering: COSPAR should be after CDM | [patrick.zimmerman@nasa.gov](mailto:patrick.zimmerman@nasa.gov) | Suggest moving CDM prior to COSPAR | Re-sorted table |
| D-1 |  |  |  | Acronym ordering: OEM should be after ODM | [patrick.zimmerman@nasa.gov](mailto:patrick.zimmerman@nasa.gov) | Suggest moving ODM prior to OEM | fixed |
| F-1 | Table F-1 |  | Ed | The very first relevant data blocks field indicates: required: none (only mandatory keywords) The four other “required: none” entries do not contain the additional text. | [patrick.zimmerman@nasa.gov](mailto:patrick.zimmerman@nasa.gov) | Suggest adding “(only mandatory keywords)” if appropriate to the other four data block description fields, or removing those words from the first entry. If appropriate. | Added “(only mandatory keywords)” to the other none entries in the second and third column. |
| H-1 |  |  | Ed | H1 reference is never used within the document. Find an appropriate place to include, or determine if it is still needed now that the SANA registry is established. | [patrick.zimmerman@nasa.gov](mailto:patrick.zimmerman@nasa.gov) | Suggest referencing H1 within document, or deleting, as appropriate | Added sentence referencing H1 |
| 1-1 | 1.1 | a) 2 | ed | Word choice... "who" anthropomorphizes a non-human entity | David S. Berry / NASA | From: "... entities who use it"  To: "... entities that use it" | fixed |
| 1-1 | 1.2 | 4 | ed | Readability. The parenthetical phrase between "prediction" and "information" makes it choppy to read. | David S. Berry / NASA | From: "re-entry prediction (though it can be used post-facto as well) information exchange..."  To: "re-entry prediction information exchange (though it can be used post-facto as well)..." | changed |
| 1-2 | 1.3 |  | ed | In line for Annex B, missing Oxford comma | David S. Berry / NASA | From: "...security, SANA and patent..."  To: "...security, SANA**,** and patent..." | fixed |
| 1-3 | 1.5 | 1 | ed | Repeated word. | David S. Berry / NASA | From: "The the extent..."  To: "To the extent..." | Fixed already |
| 1-5 | 1.6 | [7] | ed | Uses "UNOOSA"... you have used "UN OOSA" (with a space) in a few other places in the doc. | David S. Berry / NASA | Their website uses "UNOOSA" with no space, so I think that would be preferable... but if you want to have a space "UN OOSA", then use it in all instances. | Switched the 3 instances of UN OOSA to UNOOSA. |
| 3-2 | 3.3 |  | ed/te | MESSAGE\_ID: Example only shows numeric character. | David S. Berry / NASA | Add an example that includes alpha characters. | Added example with letters and a dash. |
| 3-3 | Table 3-2 | 3 | ed | In comment line in the table, missing Oxford comma. | David S. Berry / NASA | From: "... celestial body it is orbiting and the time system..."  To: "... celestial body it is orbiting**,** and the time system..." | fixed |
| 3-5 | Table 3-2 |  | ed | N\_BODY\_PERTURBATIONS: Example implies comma separated list, text should specify it. | David S. Berry / NASA | From: "List of other bodies..."  To: "Comma separated list of other bodies..." or other equivalent phrase. | Switched to comma separated list of … |
| 3-8 | Table 3-3 |  | ed | IMPACT\_REF\_FRAME: SANA Registry cited used "Body-Fixed" vice "Body-fixed". | David S. Berry / NASA | From: "Body-fixed"  To: "Body-Fixed" | fixed |
| 3-10 | Table 3-3 |  | ed/te | Requirements language in the comment before the covariance matrix (at the bottom of the page). | David S. Berry / NASA | From: "... can be omitted..."  To: "... may be omitted..." | fixed |
| 3-11 | Table 3-3 |  | ed | SOLAR\_RAD\_COEFF missing word | David S. Berry / NASA | From: "Object radiation coefficient"  To: "Object solar radiation coefficient" | fixed |
| 3-13 | 3.5.5 |  | ed/te | I know this is only supposed to be a proofreading review, so "technical" comments are technically forbidden, however, I'm confused by this one. I started out being confused by part (a), since the mandatory keyword has units of "d" (days). The means of conveying short-term as opposed to medium/long-term is not well specified, since it appears to only allow a value in "days". The boundary of "short term" is not well defined ("the last few days (up to a few weeks)"), and 3.5.5(b) implies that the remaining orbital lifetime is only provided for long and medium-term predictions, thus it's not clear what should be in this mandatory keyword for a short-term re-entry prediction. I looked at the Test Report, and Test Case #5 has the following: "<ORBIT\_LIFETIME units="d">0.416666666666667</ORBIT\_LIFETIME>" which is clearly not medium or long term. Only Test Case #2 has a medium term value. | David S. Berry / NASA | It seems to me that 3.5.5 (b) was ignored by the experts who tested the standard, and that there is no permitted way to specify part (a) if the prediction is short-term. Maybe 3.5.5 can be shortened to "... shall be used to convey the remaining orbital lifetime." since that's what the test teams seem to have done. | The prototyping engineers did interpret the standard as it was indented, but the wording of 3.5.5 b) is not clear. The point of a) is that if the value is <= 2.0 (or thereabout), it is short term prediction and the reader should look the NOMINAL\_REENTRY\_EPOCH keyword. As specified by 3.5.8, both ORBIT\_LIFETIME and NOMINAL\_REENTRY\_EPOCH should resolve to the same value. The thinking behind this was:  Long term prediction might be used to check that mitigation guidelines are met, or for something predicted to re-enter in 20±4 months. In this case it is more helpful to have the orbit lifetime in days, as an epoch would be too much to interpret (bear in mind the window will still be several months).  For short term prediction, the epoch is actually easier to interpret, as you can use the to-the-second precision and the window will be hours at most.  So, for short-term predictions you will have both a lifetime, in days, and an epoch, as a CCSDS time string. The value of the lifetime conveys whether long or short-term prediction was used.  I changed 3.5.5. a bit to:  *3.5.5 The ORBIT\_LIFETIME keyword is mandatory and its value shall be used to convey both:*  *a) whether it is short-term or medium and long-term re-entry prediction (defined in 1.5);*  *b) the remaining orbital lifetime.* |
| 3-14 | 3.5.18 |  | ed | I think some editorial clarification of this specification may be in order... since there is only one keyword for "PROBABILITY\_OF\_LAND\_IMPACT", it's not clear what it means to say that "the probability of ground impact should be within 5 percent at the following four points for each confidence interval given". | David S. Berry / NASA | Please add text explaining what is meant here, and how it should be coded in an RDM. | I removed ground, as it should only be probability if impact. This is supposed to be a rule on how to “draw” the lines of in the impact confidence intervals. These probabilities would not appear in the message, it is how the user should implement the conversion from their impact prediction output to an RDM. |
| 4-4 | 4.4.7.2 | 2 | ed | Awkward phrase "... the tags those specified...". | David S. Berry / NASA | From: "... the tags those specified..."  To: "... the tags specified..."  OR  To: "... those specified..." | Removed those. |
| 4-5 | Table 4-1 | last | ed | Missing period on "NOTE" in the "Definition" column. | David S. Berry / NASA | Add period after "4.16". | Added ‘.’ |
| 4-5 | 4.5.1 | 3-4 | ed | The referral to ref [13] "(more details ... 4.3.5)" can be deleted since it doesn't really add anything more to what is stated in RDM 4.5.1 and 4.5.2. | David S. Berry / NASA | Delete if you wish. It's not WRONG, but you basically point the reader to something they don't really need. | deleted |
| 5-4 | 5.3.4 | (b) | ed | It's probably not necessary to indicate that uppercase units are not used (though I suppose they could be applicable to a User Defined Parameter). The resultant specification is simpler. | David S. Berry / NASA | From: existing text  To: "b) units shall be in lower case, exactly as indicated in tables 3-2 and 3-3; and" | I think SEDR was present in some older version that had W as part of the unit. For consistency with future versions, I would keep things as they are now. I can see someone adding user defined parameters with W or Hz and don’t want them confused by the “only lowercase units” requirement. |
| A-3 | A2.1.4 | 1 | ed | Needs the CCSDS document number | David S. Berry / NASA | Add "508.1-B-1" in the row. | Added |
| A-4 | table entry 19 | 1 | ed | Error in ICS feature description. | David S. Berry / NASA | From: "Time system user..."  To: "Time system used..." | fixed |
| A-5 | table entries 39, 40, 41 |  | ed | Item 39 "Feature" text looks like it should be on line 40; the current line 39 feature and line 40 feature seem like maybe they are the same thing? (or maybe not... depends upon the meaning of "EPOCH" in the previous and next messages... is it the epoch when the message was created? or the epoch of the state vector? Line 41 looks like it could be correct | David S. Berry / NASA | Check the "Feature" column for line items 39, 40, and 41 and correct as applicable. | fixed |
| C-2 | Figure C-2 |  | ed/te | In the section "Short term re-entry prediction results" of the sample RDM, near the top, the guidance provided in section 3.5.6 is not observed (specifically, the NOMINAL\_REENTRY\_EPOCH is not provided. | David S. Berry / NASA | Since it's only "should" guidance, this is not an error, but consider if an example like this would be something we want to provide... one could argue either way. | Added NOMINAL\_REENTRY\_EPOCH to Figure C-2 and C-4 |
| C-3 | Figure C-3 | 7 | ed | This sample was originally in Annex D (apparently) but, now it's in Annex C. | David S. Berry / NASA | From: "<COMMENT>... Annex D KVN Fig D-1..."  To: "<COMMENT>... Annex C KVN Fig C-1..." | fixed |
| C-3 | Figure C-3 |  |  | <OBJECT\_TYPE> is included in the sample, but it's not a mandatory keyword (as indicated in the caption). Perhaps the object type requirement changed along the way. | David S. Berry / NASA | Remove the <OBJECT\_TYPE> line from the sample. | Removed OBJECT\_TYPE |
| C-3 | Figure C-4 | 7 | ed | This sample was originally in Annex D (apparently) but, now it's in Annex C. | David S. Berry / NASA | From: "<COMMENT>... Annex D KVN Fig D-2..."  To: "<COMMENT>... Annex C KVN Fig C-2..." | fixed |
| C-4 | Figure C-4 |  | ed | EPOCH\_TZERO: Is T09:00:00.00 in Figure C-2, but is T00:00:00.00 in Figure C-4 | David S. Berry / NASA | Not really an error, but could fix if you want Figure C-4 to match Figure C-2. | Fixed in C-4 |
| C-4 | Figure C-4 |  | ed | PREVIOUS\_MESSAGE\_ID and PREVIOUS\_MESSAGE\_EPOCH are different in Figure C-4 compared to Figure C-2 | David S. Berry / NASA | Not really an error, but could fix if you want Figure C-4 to match Figure C-2. (In this instance, there's a better case for fixing since the dates are in 2015 but the re-entry is in 2018.) | Fixed in C-4. It was also previous epoch in one figure, next epoch in the other; changed both to next. |
| C-5 | Figure C-4 | 2 | ed | <COMMENT> on line 2 is different in Figure C-4 compared to Figure C-2 | David S. Berry / NASA | Add "Position/velocity" before "covariance matrix" in the comment. Not an error, but could fix if you want Figure C-4 to match Figure C-2. | I removed position/velocity to eliminate one line break in the file, but there were plenty of other line breaks so added position/velocity back in for consistency. |
| C-5 | Figure C-4 | 7, 8 | ed/te | Invalid XML for CZ\_X and CZ\_Y. | David S. Berry / NASA | Move the end bracket ">" for CZ\_X and CZ\_Y to a position after the units endquote and the value. | fixed |
| C-5 | Figure C-4 |  | ed | Values for several of the tags between CX\_DOT\_X and CZ\_DOT\_Z are different in Figure C-4 compared to Figure C-2. | David S. Berry / NASA | Not really an error, but could fix if you want Figure C-4 to match Figure C-2. | Fixed (?) |
| C-5 | Figure C-4 |  | ed/te | Units are not included for the <WET\_MASS> and <DRAG\_AREA> | David S. Berry / NASA | Add units per 5.2.4.1 | Added units |
| C-5 | Figure C-4 |  | ed | In <odParameters> the <COMMENT> is different in Figure C-4 compared to Figure C-2. | David S. Berry / NASA | Not an error, but could fix if you want Figure C-4 to match Figure C-2. | fixed |
| C-5 | Figure C-4 |  | ed | <OBS\_AVAILABLE> AND <OBS\_USED> are present in Figure C-4, but not in Figure C-2. | David S. Berry / NASA | You could remove these keywords from Figure C-4, or add them to Figure C-2, if you want the two figures to match. | Removed from C-4 |
| D-1 | Annex D |  | ed | Candidate acronyms to add: DOF, IADC, RMS, URL. These acronyms appear in the document but not in the acronyms annex. | David S. Berry / NASA | Consider adding. | Added to annex D |
| E-1 | Annex E | RDM-0055 | ed | Missing Oxford comma in the requirement statement. | David S. Berry / NASA | From: "uncontrolled or unknown"  To: "uncontrolled**,** or unknown" | oxforded |
| E-1 | Annex E | RDM-0060 | ed/te | The metadata section Table 3-2 doesn't specify the time format. | David S. Berry / NASA | Change the "Trace"  From: table 3-2  To: 5.3.3.5 | fixed |
| E-2 | Annex E | RDM-0070 | ed/te | I would add table 3-2 to the Trace since there are units on a couple of metadata items | David S. Berry / NASA | Add "table 3-2" to the "Trace" | added |
| E-2 | Annex E | RDM-0100 | ed/te | Given the "Rationale", I'm not sure how table 3-1 applies to the Trace | David S. Berry / NASA | Change the Trace to remove table 3-1 | removed |
| E-2 | Annex E | RDM-0110 | ed/te | I think there are substantial elements of consistency in all tables 3-1 through 3-3 | David S. Berry / NASA | Change the Trace to add table 3-1 and table 3-3 | added |
| E-2 | Annex E | RDM-0190 | ed | awkward phrase in "Rationale" | David S. Berry / NASA | From: "how reliable is the data"  To: "the reliability of the data" | changed |
| F-1  F-2 | Annex F |  | ed | There are several instances of the phrase "spacecraft parameters" in this Annex, but there is no data block in Table 3-3 labelled as such. The relevant block is labelled "Object physical parameters" in Table 3-3. [Note that there are 3 instances of "spacecraft parameters" outside Annex F, but 2 appear in sample RDMs and 1 appears in the Requirements Annex E, so I don't think those need to change.] | David S. Berry / NASA | For instances in Annex F:  From: "spacecraft parameters"  To: "object physical parameters" | fixed |
| F-1 | Annex F |  | ed/te | It's not clear to me why the state vector is not a relevant required data block for the "object state vector" data category ("required: none" is stated). Compare for example the relevant data block for the "ground impact data" category. | David S. Berry / NASA | Consider apparent inconsistency here and resolve. | I think this is due to the renaming from data block to data category or whatever that was requested by one of the ADs. I added the block itself as a requirement where it was missing, apart from the two atmospheric re-entry rows, which can be done with just mandatory keywords. |
| G-3 | Annex G, G1.4 |  | ed | vimpact has a rho nought that is not in the nomenclature list | David S. Berry / NASA | Add the rho nought definition to nomenclature. | Added ρ0 as Earth sea level atmospheric density |
| G-4 | Annex G, G1.5 |  | ed | Misspelled word | David S. Berry / NASA | From: fragments or losses external parts  To: fragments or loses external parts | fixed |
| G-8 | Annex G, G3 | 3-4 | ed | Awkward phrase... to fix just requires moving one word ("was"). | David S. Berry / NASA | From: "... and when was the re-entering object last observed."  To: "... and when the re-entering object was last observed." | fixed |