| **Page** | **Section** | **Line** | **Type** | **Comment/ Rationale** | **Source of Comment (Name/Agency)** | **Suggested Disposition** | **Disposition**  **(Completed by Principal Editor)** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| N/A | N/A | N/A | N/A | ALL PAGE/SECTION/LINE NUMBERS RELATIVE TO "CHANGES ACCEPTED" VERSION | David S. Berry / NASA | N/A | N/A |
| C-1 | C1 | para6  line 2 | te | The annex is labelled informative. The paragraph contains a normative statement, which is not permitted. | David S. Berry / NASA | From: "... dimensions are equivalent, the user shall select XOES\_MAX as the direction along one of those longest..."  To: "... dimensions are equivalent, XOES\_MAX is defined as the direction along one of those longest..." |  |
| C-1 | C1 | para8  line 2 | te | The annex is labelled informative. The paragraph contains a normative statement, which is not permitted. | David S. Berry / NASA | From: "... dimensions are equivalent, the user shall select XOES\_MAX as the direction along one of those longest..."  To: "... dimensions are equivalent, XOES\_MAX is defined as the direction along one of those longest..." |  |
| C-2 | C1 | 1 | te | The annex is labelled informative. The paragraph contains a normative statement, which is not permitted. | David S. Berry / NASA | From: "The OES z-axis shall always be defined as..."  To: ""The OES z-axis is always defined as..." |  |
| C-2 | C1 | Fig C-1 | te | The diagram shows the OES frame axes and OES\_PARENT\_FRAME axes as always being having the same letter name. It strikes me that this is not necessarily so, e.g., couldn't XOES\_MAX be on the same side of the shape as YOES\_PARENT\_FRAME or ZOES PARENT FRAME? | David S. Berry / NASA | If true, add a stat |  |
| C-3 | C1 | 2 | te | The annex is labelled informative. The paragraph contains a normative statement, which is not permitted. | David S. Berry / NASA | From: "... the ELLIPTICAL CYLINDER OES z-axis shall always be defined as..."  To: "... the ELLIPTICAL CYLINDER OES z-axis is always defined as..." |  |
| C-4 | C2 |  | te | In the various equations, rTarget does not appear to be used. | David S. Berry / NASA | If it is not used, it should be removed from the "Definitions". |  |
| C-4 | C2 |  | te | ETarget : In the note, there is a question as to whether or not this definition should be removed, but I think it should not since it appears in several of the equations. | David S. Berry / NASA | Recommend to retain ETarget in the definitions. |  |
| C-4 | C2 |  | ed/te | In the equation of Etarget , the angle (in Atmosphere()) is not defined; it's not mentioned in the definition of Atmosphere | David S. Berry / NASA | Provide definition if it's used, or remove from equation if it's not. |  |
| C-4  C-5 | C2 |  | te | Note that a few of the definitions involve a unitless ratio between 0 and 1, but some of them appear in denominators (Phase(phi)), F, Atmosphere ), so should always be > 0. | David S. Berry / NASA | Not sure how you want to note this, but if zero is actually used some of these then the VMabsolute specified in physical characteristics won't have a physical interpretation. Maybe  "unitless, 0 < F <=1" or something like that. |  |
| C-5 | C2 | 4 | ed/te | In the paragraph starting with "From the above equations...", it's not clear how the substitutions into the equation for VMabsolute are correct. The equation for VMabsolute is not provided. | David S. Berry / NASA | Provide equation for VM absolute based on the Definitions provided in this section. |  |
| 6-20 | Table 6-5 |  | ed | VM\_ABS: The description refers the reader to "Annex C, Section C-4" but the material has moved. | David S. Berry / NASA | From: "Annex C, Section C-4"  To: Annex C, Section C2 |  |
| D-8 thru  G-8 |  |  | N/A | In general I skipped the annexes containing examples... we can catch these later when the OCM content converges. | David S. Berry / NASA | N/A |  |
| D-8 | Annex D | 6-7 | ed | These 2 lines should probably be removed because they refer to a Silver Book (ODM 2.0) | David S. Berry / NASA | Remove. It's possible that I at some point suggested these lines be added, but now I think we should just go with the "3.0" for OPM version. I apologize for the re-work. |  |
| F-1 | Annex F | 4-5 | ed | The lines which refer to a Silver book (ODM 2.0) should probably be removed. | David S. Berry / NASA | Remove from "Annex Fig. F-2... must be specified." It's possible that I at some point suggested this sentence be added, but now I think we should just go with the "3.0" for the OEM version. I apologize for the re-work. |  |
| H-1 | Annex H |  | ed | Given the migration of material to SANA, there are some acronyms that can be removed, if desired, because they no longer appear in the document except in this Annex: ECI, GCRF, ITRS, TCG. | David S. Berry / NASA | Consider removing, but OK if they stay... they don't hurt anything. |  |
| I-3 | I2.2 | Hdr | ed | Header row for the table is not present. | David S. Berry / NASA | Use MS Word "Repeat Header Rows" on the table. |  |
| I-3 | I2.2 | H3 | te | The columns for OPM?, OMM?, OEM? have "N" as the value, but since we decided to add MESSAGE\_ID to the older messages, I think we can change this to "Y". | David S. Berry / NASA | Consider. |  |
| J-1 | Title + J1 |  | ed | Maybe if we added "(ICD)" after the word "Document" in the title, we could use just the acronym instead of the full expansion + acronym in line 2 and line 6 of the first paragraph in section J1. | David S. Berry / NASA | Consider. |  |
| J-1 | J1 |  | ed | Item 6): Section reference needs an update. | David S. Berry / NASA | From: 6.2.12  To: 6.2.11 |  |
| J-1 | J1 |  | ed | Item 7): The "Note" which contained the mention of ICD for floating point numbers in extended precisions in 7.5.5 (now 7.5.6) has been removed, so this item can be removed from J1 | David S. Berry / NASA | Remove item 7) |  |
| J-2 | J1 |  | te | Item 11): There are only 2 references in the document to SCLK, but neither of them is in Annex B. | David S. Berry / NASA | From: Annex B  To: 7.5.10 (but this would also require adding the proviso about transforming the SCLK to a standardized time system). |  |
| J-2 | J1 |  | ed/te | Item 11): The bolded text does not seem related to the preceding unbolded text. | David S. Berry / NASA | Move the bolded text into a new table row, with appropriate text reference. |  |
|  | J1 |  | te | There are a references to using an ICD in the document that are not in the table. | David S. Berry / NASA | Consider adding items for:   * ORB\_AVERAGING 6.2.4 Table 6-4 * ORB\_TYPE 6.2.4, COV\_TYPE 6.2.6, STM\_TYPE 6.2.7 when = ICD to Item (10) in J1 * OD\_CONFIDENCE 6.2.10 * OCM Max line length 7.3.3 |  |
| K-1 | K1 |  | ed/te | Mention that MESSAGE\_ID was added to the OPM, OMM, and OEM to provide better satisfaction of requirement P10 (identification and annotation of messages). | David S. Berry / NASA | Consider. |  |
| K-1 | K2 |  | ed/te | Item 1, line 2. The SANA Registry reference is too specific. | David S. Berry / NASA | From: SANA Registry of Organizations  To: SANA Registry |  |
| K-1 | K2 |  | ed/te | Item 1, line 3. The SANA Registry link should be updated. | David S. Berry / NASA | From: https://.../r/organizations  To:  https://.../r/navigation\_standard\_normative\_annexes |  |
| L-2 | L2 | 3 | ed | It might be helpful to the reader to point them to Annex B, which has all the required details. | David S. Berry / NASA | From: "... from the SANA registry:"  To: "... from the SANA registry (see Annex B):" |  |
| M-1 |  |  | ed | There are several informative annexes that are not referenced in the document, and could conceivably be removed. | David S. Berry / NASA | Consider removing M-2, M-5, M-10, M-11, M-13, M-14, M-15, which are no longer referred to in the ODM. |  |