| ID | RID SHORT TITLE | PAGE NUMBER | PARAGRAPH NUMBER | REVIEWERS E-MAIL ADDRESS | REVIEWER'S NAME | CATEGORY OF REQUESTED CHANGE | DESCRIPTION OF REQUESTED CHANGE | SUPPORTING ANALYSIS | RID DISPOSITION |
|---|---|---|---|---|---|---|---|---|---|
| 1 | Conditional REFERENCE_FRAME Keyword | 3-12 | Table 3-3 | john.pietras@gst.com | John Pietras | Recommended | Add a third possibility for the Mandatory status of metadata keywords: "C" for conditional. Change the Mandatory status of the REFERENCE_FRAME keyword from "no" to "C". Review the other keywords for dependencies and change as appropriate. | The inclusion/exlusion of the REFERENCE_FRAME keyword is required if the ANGLE_TYPE keyword is present and has the value RADEC. The current "No" value might be interpreted as indicating that the decision to include or exclude it is independent of other considerations. | Reject. Virtually all of the keywords in the metadata section of the TDM are conditional dependent upon the data type. Annex I identifies the various relationships. |
| 2 | Add TRANSMIT_BAND and RECEIVE_BAND keywords | E-7 | Figure E-7 | john.pietras@gst.com | John Pietras | Recommended | Add TRANSMIT_BAND and RECEIVE_BAND keywords to the segments of this example TDM | The example TDM illustrates a case in which multiple transponders on the same spacecraft but in different are used in the simultaneous collection of tracking data. Using the TRANSMIT_BAND and RECEIVE_BAND keywords would highlight the distinction among the data types being reported in each of the segments. | Accept. Added per recommendation. |
| 3 | carrier power and noise spectral densities | I-(any) | Annex I | john.pietras@gst.com | John Pietras | Recommended | Address the required, situationally-required,and optional metatada for the CARRIER_POWER, PC_N0 (carrier power to noise spectral density), and PR_N0 (ranging power to noise spectral density) Data keywords in Annex I. | Annex I is a very useful reference, but it currently does not address the metadata requirements and options associated with the aforementioned Data keywords. | Accept. Added per recommendation. |
| 4 | Add Carrier Power, Pc/No, and Pr/No to MODE description | 3-8 | Table 3-3 | john.pietras@gst.com | John Pietras | Recommended | Add carrier power, carrier power to noise spectral density, and ranging power to noise spectral density to the list of observables for which the 'SEQUENTIAL' value applies to the MODE metadata keyword. | The permissable value(s) of the MODE keyword for these three observables are currently unspecified. The lack of specification may lead to incorrect implementations. | Accept. Added per recommendation. |
| 5 | Allow non-cooperative participants | 1-4 | 1.3.4.1 | charles.w.bennett@nasa.gov | Charles Bennett | Technical Fact | The existing definition of "participant" would seem to exclude passive spacecraft tracked by radar. The definition sould be flexible enough to include non-cooperative targets tracked by radar, or semi-cooperative spacecraft only employing retroreflectors to allow for laser or RF tracking. | Existing JSC applications of radar skin tracking could be interpreted as non-compliant under a strict definition of "participant" | Added "reflect" to the definition of "participant" for radar per this request, but expanded to "electromagnetic frequencies" to cover optical as well. |
| 6 | Invalid .xsd Hyperlink | 5-1 | 3 | andrzej.m.stewart@nasa.gov | Andrzej M. Stewart | Technical Fact | From: http://sanaregistry.org/r/ndmxml/ndmxml-1.0-tdm-2.0.xsd To:https://sanaregistry.org/files/ndmxml/ndmxml-1.0-tdm-1.0.xsd | The link on page 5-1 (http://sanaregistry.org/r/ndmxml/ndmxml-1.0-tdm-2.0.xsd) gives a 404 error. Part of that is that the files are actually at a slightly different address (the repository page is at http://sanaregistry.org/r/ndmxml/, but the file is stored at https://sanaregistry.org/files/ndmxml/ndmxml-1.0-tdm-1.0.xsd). The other part is that the file appears to be ndmxml-1.0-tdm-1.0.xsd, not ndmxml-1.0-tdm-2.0.xsd. | RID is true, but doesn't need to be fixed because the updated schema cannot be uploaded to the SANA Registry until the revised TDM is published. |

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| 7 | DSN TDM Example | Annex E | N/A | ian.m.roundhill@jpl.nasa.gov | Ian Roundhill | Recommended | I suggest including a DSN TDM in the TDM examples. | DSN is one of the major producers of TDMs | Accept. Two examples were added per the suggestion. |
| 8 | | 1-2 | 1.2.5.1 | alexandru.mancas@esa.int | A. Mancas | | " Satellite Laser Ranging (SLR) 'Fullrate' and/or 'Normal Points' format (sometimes referred to as 'Quicklook'), which are already transferred via a standardized format documented at […]". ESA/SST has been heavily promoting the use of TDMs for SLR range data over the last couple of years. This is entirely doable with the TDM, only that this use is entirely ignored in the Blue Book. You can use some other keywords (eg TRANSMIT_* in the metadata) as well to properly characterize the SLR data | Add " however, such data could conceivably be transferred via TDM with a 'RANGE' keyword (see 3.5.2.7) ", same as with LIDAR. | Accept. Added text per recommendation. |
| 9 | Add MESSAGE_ID to Header | 3-3 | 3.2 | alexandru.mancas@esa.int | A. Mancas | | a message ID could be nice; not sure if appropriate for v2, maybe something we should consider for v3 | consider adding MESSAGE_ID to the header | Accepted. This is consistent with Nav WG direction. |
| 10 | Add optical frequency example | 3-9 | 3.3 | alexandru.mancas@esa.int | A. Mancas | | "TRANSMIT_BAND" it would be nice to add an example for SLR, eg "532 nm" or "GREEN" | consider adding this to the example column | Accept. Added "GREEN". |
| 11 | Add optical frequency example | 3-9 | 3.3 | alexandru.mancas@esa.int | A. Mancas | | "RECEIVE_BAND" it would be nice to add one or two examples for SLR or optical telescopes, eg "532 – 946 nm" or "GREEN" | consider adding to the example column | Accept. Added "GREEN". |
| 12 | Tie apparent magnitude to receive band | 3-33 | 3.5.5.1 | alexandru.mancas@esa.int | A. Mancas | | It might be nice to tie the apparent magnitude to the RECEIVE_BAND value, if it is present in the metadata. | consider, not sure if necessary | Reject for V2, however, consider suggesting this for TDM V3 so it can be discussed in that context. |