Pointing Request Message RID Status (Agency Review)

Agency	RID's Filed	PRM Comments
ASI	0	No RIDs fiiled, no official response
UKSA	0	No RIDs fiiled, no official response
CNES	0	Official response received: "No RIDs filed"
CSA	0	No RIDs fiiled, no official response
DLR	0	Official response received: "No RIDs filed"
ESA	4	RIDs filed
RFSA	0	No RIDs fiiled, no official response
INPE	0	Official response received: "No RIDs filed"
JAXA	0	Official response received: "No RIDs filed"
NASA	85	RIDs filed
CNSA	0	No RIDs fiiled, no official response
Total	89	

Subject: RE: [CMC Alert] CCSDS Review of CCSDS 509.0-R-1, Pointing Request Message

Date: Monday, March 14, 2016 at 3:45:57 AM Pacific Daylight Time

From: Soula Jean-Marc <Jean-Marc.Soula@cnes.fr>

To: Berry, David S (3920) <david.s.berry@jpl.nasa.gov>

CC: CCSDS Rapporteur <tomg@aiaa.org>, Behal Brigitte <Brigitte.Behal@cnes.fr>, Normalisation <Normalisation@cnes.fr>, Lamy Alain <Alain.Lamy@cnes.fr>

Bonjour David

This email is to inform you that CNES has reviewed the PRM red book and that no comment was collected this time.

Best regards

Jean-Marc Soula
CNES - DCT/OP/C-STA
Advisor, GN Operations
18 Avenue Edouard Belin
31401 Toulouse Cedex 9 - France
Tel.: +33 (0)5 61 2 74647
Fax.: +33 (0)5 61 2 73135
Email: Jean-Marc.Soula@cnes.fr

-----Message d'origine-----
De : cmc-exec-bounces@mailman.ccsds.org [mailto:cmc-exec-bounces@mailman.ccsds.org] De la part de CCSDS Rapporteur
Envoyé : jeudi 7 janvier 2016 23:57
À : CMC-exec@mailman.ccsds.org; Observers@mailman.ccsds.org
Objet : [CMC Alert] CCSDS Review of CCSDS 509.0-R-1, Pointing Request Message

Control Number: RP 16-01

The following draft CCSDS Recommended Standard has been placed on line for CCSDS Agency review:

CCSDS 509.0-R-1. Pointing Request Message. Red Book.
Issue 1. December 2015.

DOCUMENT DESCRIPTION: This draft Recommended Standard defines the Pointing Request Message (PRM), a standardized format that allows space agencies and operators to exchange information about requested (sequences of) changes to the attitude of the spacecraft or to an articulated spacecraft component.

The due date for receipt of Agency review comments by the Review Coordinator is 2016-3-15. More information is available at the Web site identified below.

The review document, in Portable Document Format (PDF), and associated review materials are available for downloading at the following location:

http://public.ccsds.org/review/

REMINDER: Agency Heads of Delegation are to make their own arrangements for review participation by their Agency-sponsored Associates.

NOTE: Per CMC Action Item CMC-A-2007-10-05, agency reviewers are reminded to review for compliance with the CCSDS Publications Manual as well as technical content.

Subject: Fwd: AW: [Cesg-all] CCSDS Review of CCSDS 509.0-R-1, Pointing Request Message

Date: Wednesday, January 13, 2016 at 5:26:09 AM Pacific Standard Time

From: Thomas Gannett <tomg@aiaa.org>

To: Berry, David S (3920) <david.s.berry@jpl.nasa.gov>

```
X-Google-DKIM-Signature: v=1; a=rsa-sha256; c=relaxed/relaxed;
         d=1e100.net; s=20130820;
         h=x-original-authentication-results:x-gm-message-state:from:to:cc
          :subject:thread-topic:thread-index:date:message-id:references
          :in-reply-to:accept-language:content-language:content-type
          :content-transfer-encoding:mime-version;
         bh=ul5gBRCej0YBdS3jtBPFvg53y/byxpFZmAUoCEYXk2U=;
         b=RoUMH9q1lJJ3PocKzvPUXMwvWJPtFfTdl79Nr5mYyS2Iy7n5ohkZ4SBjG9Mk+5YF/e
          Gx3UPKoXgKPnzDvPATN4YCXuCJFGQb80IbUN3Dvedj2zIMqcuhFSnga03TqinItrdQB6
          1jSyV3MolJdAKHjwZX/YenQgLLpX1QUylqCy5tNhUflofnwX1bfdz/Utx82WY78GkhXt
          DUFlhtNXmAGZ8eQAp63ayRxvHp3jO6mLUGmVfeIMy5n2eEuFLcmrPG/A1C6pMm2kxQaQ
          tsn0nyD9A3zriqvU3igOpXEh746GdtAACbnPp0lrD39594LeigxS+740pvwqvDlzMJOP
          xslA==
X-Original-Authentication-Results:
mx.google.com;       spf=pass (google.com:
domain of osvaldo.peinado@dlr.de designates
129.247.252.32 as permitted sender) smtp.mailfrom=osvaldo.peinado@dlr.de
X-Gm-Message-State:
ALoCoQnOdHrKqImZoJalxX/BL5OA5sPe2IsVIoi/0NJc9/DVhKtbCQWsRaP7F2/acSKd16D5j6Gekqc+pJgmxWht
oofn0OgG9OR+GphJf3NipXsNzNv6FKSi/dvZ98gn58f0sAIGuRjCzFrGr6/LPgpy9iU8Uxi52RP1olrQOJxP01W/
/ODKXx1/o8XlAzhUm2ge2MdrAy65
X-Received: by 10.194.113.165 with SMTP id iz5mr22771883wjb.4.1452684039550;
         Wed, 13 Jan 2016 03:20:39 -0800 (PST)
X-Received: by 10.194.113.165 with SMTP id iz5mr22771822wjb.4.1452684038832;
         Wed, 13 Jan 2016 03:20:38 -0800 (PST)
Authentication-Results: mx.google.com;
        spf=pass (google.com: domain of
osvaldo.peinado@dlr.de designates
129.247.252.32 as permitted sender) smtp.mailfrom=osvaldo.peinado@dlr.de
From: <osvaldo.peinado@dlr.de>
To: <tomg@aiaa.org>
CC: <nickt@aiaa.org>
Subject: AW: [Cesg-all]         CCSDS Review of
CCSDS 509.0-R-1, Pointing Request
  Message
Thread-Topic: [Cesg-all]        CCSDS Review of
CCSDS 509.0-R-1, Pointing Request
  Message
Thread-Index: AQHRSZ7yAnotybctaE69hy7ZyEW0Ip75VDZg
Date: Wed, 13 Jan 2016 11:20:36 +0000
Accept-Language: de-DE, en-US
X-MS-Has-Attach:
X-MS-TNEF-Correlator:
X-MS-Exchange-Organization-AuthSource: AIAASWMLEXCH010.hq.ad.aiaa.org
X-MS-Exchange-Organization-AuthAs: Anonymous

Dear Tom
There are not comments from DLR side related to this book
Best Regards
Osvaldo

-----Ursprüngliche Nachricht-----
Von: cesg-all-bounces@mailman.ccsds.org
[mailto:cesg-all-bounces@mailman.ccsds.org] Im Auftrag von CCSDS Rapporteur
Gesendet: Donnerstag, 7. Januar 2016 23:58
An: CESG-all@mailman.ccsds.org
Betreff: [Cesg-all] CCSDS Review of CCSDS 509.0-R-1, Pointing Request Message
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Wichtigkeit: Hoch

Control Number: PRP 16-01

The following draft CCSDS Recommended Standard has been placed on line for CCSDS Agency review:

CCSDS 509.0-R-1. Pointing Request Message. Red Book.
Issue 1. December 2015.

DOCUMENT DESCRIPTION: This draft Recommended Standard defines the Pointing Request Message (PRM), a standardized format that allows space agencies and operators to exchange information about requested (sequences of) changes to the attitude of the spacecraft or to an articulated spacecraft component.

The due date for receipt of review comments by the Review Coordinator is 2016-3-15. Area Directors and WG/BOF Chairs may submit review comments directly to the CCSDS Review Coordinator. More information is available at the Web site identified below.

The review document, in Portable Document Format (PDF), and associated review materials are available for downloading at the following location:

http://public.ccsds.org/review/

NOTES

1 Per CMC Action Item CMC-A-2007-10-05, agency reviewers are reminded to review for compliance with the CCSDS Publications Manual as well as technical content.

2 Per CESG Resolution CESG-R-2008-10-006, the CESG no longer conducts pre-Agency-review reviews but is instead expected to participate in Agency reviews when they are announced.

Thomas Gannett
+1 443 472 0805

Subject: INPE Review to: [CMC Alert] CCSDS Review of RP 16-01/CCSDS 509.0-R-1
Date: Tuesday, March 8, 2016 at 12:21:20 PM Pacific Standard Time
From: Eduardo W. Bergamini <e.w.bergamini@uol.com.br>
To: Berry, David S (3920) <david.s.berry@jpl.nasa.gov>
CC: Antonio F Bertachini A Prado, Dr. - DEM/ETE <prado@dem.inpe.br>, Mateus Mosca Viana, Dr. (CC-FFB) <fliegemeister@gmail.com>, Mauricio G. V. Ferreira, Dr. - CCS-INPE (P) <mauricio.ferreira@inpe.br>, Walter Abrahão dos Santos, Dr. - LAC <walter.abrahao@inpe.br>, Secretaria RME/TEC <secretaria.rme@dir.inpe.br>

TO:
Dr. David S. Berry, Coordinator
CCSDS Review **RP 16-01**
JPL/NASA/CCSDS

Dear David,

I wish to inform you that there is no RID generated from INPE in response to **RP 16-01**, associated to document CCSDS 509.0-R-1.
I would appreciate if you can confirm this message. Thank you.

With my kind regards,
EDUARDO W. BERGAMINI
INPE/CCSDS
_____

-----Mensagem Original-----
From: CCSDS Rapporteur
Sent: Thursday, January 07, 2016 8:57 PM
To: CMC-exec@mailman.ccsds.org ; Observers@mailman.ccsds.org
Subject: [CMC Alert] CCSDS Review of CCSDS 509.0-R-1,Pointing Request Message

Control Number: **RP 16-01**

The following draft CCSDS Recommended Standard has been placed on line for CCSDS Agency review:

CCSDS 509.0-R-1. Pointing Request Message. Red Book.
Issue 1. December 2015.

DOCUMENT DESCRIPTION: This draft Recommended Standard defines the Pointing Request Message (PRM), a standardized format that allows space agencies and operators to exchange information about requested (sequences of) changes to the attitude of the spacecraft or to an articulated spacecraft component.

The due date for receipt of Agency review comments by the Review Coordinator is **2016-3-15**. More information is available at the Web site identified below.

The review document, in Portable Document Format (PDF), and associated review materials are available for downloading at the following location:

http://public.ccsds.org/review/

REMINDER: Agency Heads of Delegation are to make their own arrangements for review participation by their Agency-sponsored Associates.

NOTE: Per CMC Action Item CMC-A-2007-10-05, agency reviewers are reminded to review for compliance with the CCSDS Publications Manual as well as technical content.

_____

CMC-exec mailing list
CMC-exec@mailman.ccsds.org
http://mailman.ccsds.org/mailman/listinfo/cmc-exec

Subject: Re: [CMC Alert] CCSDS Review of CCSDS 509.0-R-1, Pointing Request Message
Date: Thursday, March 10, 2016 at 5:17:06 PM Pacific Standard Time
From: JAXA CCSDS Secretariat <JAXA.CCSDS@jaxa.jp>
To: Berry, David S (3920) <david.s.berry@jpl.nasa.gov>
CC: JAXA CCSDS Secretariat <JAXA.CCSDS@jaxa.jp>

Dear David-san,

This is a reply for the review oppotunity of CCSDS document.

CCSDS 509.0-R-1
Pointing Request Message
Red Book. Issue 1.
December 2015.

There is no comment on the document from JAXA.

Best Regards,

Yuta Kimura
JAXA CCSDS Secretariat

> On Thu, 7 Jan 2016 17:57:25 -0500
> CCSDS Rapporteur <tomg@aiaa.org> wrote:
>
> > Control Number: RP 16-01
> >
> > The following draft CCSDS Recommended Standard has been placed on line
> > for CCSDS Agency review:
> >
> > CCSDS 509.0-R-1. Pointing Request Message. Red Book.
> > Issue 1. December 2015.
> >
> > DOCUMENT DESCRIPTION: This draft Recommended Standard defines the
> > Pointing Request Message (PRM), a standardized format that allows space
> > agencies and operators to exchange information about requested (sequences
> > of) changes to the attitude of the spacecraft or to an articulated
> > spacecraft component.
> >
> > The due date for receipt of Agency review comments by the Review
> > Coordinator is 2016-3-15. More information is available at the Web site
> > identified below.
> >
> > The review document, in Portable Document Format (PDF), and associated
> > review materials are available for downloading at the following location:
> >
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> >
> > REMINDER: Agency Heads of Delegation are to make their own arrangements
> > for review participation by their Agency-sponsored Associates.
> >
> > NOTE: Per CMC Action Item CMC-A-2007-10-05, agency reviewers are reminded
> > to review for compliance with the CCSDS Publications Manual as well as
> > technical content.
> >
> > _____
> > CMC-exec mailing list
> > CMC-exec@mailman.ccsds.org
> > http://mailman.ccsds.org/mailman/listinfo/cmc-exec

Page	Section	Line	Type	Comment/ Rationale	Source of Comment (Name/Agency)	Suggested Disposition	Disposition (completed by principal editor)
1-2	1.5		Editorial	Swapped order of annexes The description lists annex F before annex E.	Frank Dreger/ESA		ACCEPTED
3-2	3.2		Recommended	Time Period Covered by PRM Neither the header nor the metadata in the body identify the time period covered by the PRM. This might be useful information when processing the data. Consider adding it to the dat astructure.	Frank Dreger/ESA		ACCEPTED. A blockStart and blockEnd (or other suitable tag name) will be added to the metadata to reflect the aggregated timelines within the segment.
3-4	3.2.3.5		Editorial	Required Number of Blocks The requirement asks for "a series of attitude blocks". This might be misleading. Consider changing to "one or more".	Frank Dreger/ESA		ACCEPTED.
4-1	4.2.1 c		Recommended	Limitation wrt Reference Inertial Direction Forcing the reference direction for inertial pointings to the Definition part causes a limitation for the entire PRM. Consider moving the defintion of the reference direction to the pointing request data to remove this limitation.	Frank Dreger/ESA		REJECTED. Accepting this RID would constitute a major change to the PRM because it will require major modifications to many of the templates throughout the document to ensure consistency. It is acknowledged that the limitation exists, and can be addressed in the manner suggested. However, there are also manageable alternative solutions in the existing PRM apparatus to address the cited problem.

Reviewer	email	Page	Paragraph	Short Title	Description of Requested Change	Category	Disposition
Daniel Heater	daniel.l.heater@nasa.gov	3-19	3.3.2.19	Rotation Type Scalar Clarification	scalar= keyword can appear in conflict with tagged elements (<Q1-3> + <QC>) Recommend clarification that if the element tags are specified, they take precedence over the scalar keyword. Also need to specify the default value of scalar if not specified, first or last element?	Recommended	ACCEPTED WITH MODIFICATION. The "scalar" attribute has become obsolete as the definition of quaternion in the PRM changed. The "scalar" attribute has been removed.
Daniel Heater	daniel.l.heater@nasa.gov	3-7	3.3.2	OBJECT Identification	Recommend adding OBJECT_NAME and OBJECT_ID consistent with the definitions in referenced documents CCSDS 502.0-B-2 - Orbit Data Messages, CCSDS 504.0-B-1 - Attitude Data Messages, and examples in CCSDS 505.0-B-1: XML Specification for Navigation Data Messages. This is allow users to determine the spacecraft referenced by the PRM file and correlate them with other navigational data files.	Recommended	ACCEPTED.
Daniel Heater	daniel.l.heater@nasa.gov	3-7	3.3.2	Pointing Correction Parameters	Recommend addition of a parameter(s) indicating if the pointing should be corrected for light travel time and/or stellar aberration.	Recommended	PARTIALLY ACCEPTED WITH MODIFICATIONS. While the specific recommendation is beyond the scope of the PRM, the suggestion has merit in that it led to clarifying guidance for PRM users.
Daniel Heater	daniel.l.heater@nasa.gov	Throughout	Throughout	Small Angle/Distance Units	Recommend allowing of arcSec and arcMin as an angular unit to mitigate errors related to operating on very small numbers of computer processors. Note: arcSec and arcMin are listed in Appendix D: Supported Units, but are not listed as allowable values in tables throughout the document Same comment for units of angular velocity. I.e., allow arcSec/s Allow units of millimeters for distance. Rationale: mitigate errors related to operating on small numbers. In particular for this case, offset of an instrument from nearby reference frame.	Recommended	PARTIALLY ACCEPTED. The standard permits all of the requested units, but as the reviewer has pointed out, they are not explicitly listed in the "Allowed Values" column of the many tables. This will be addressed by removing the specific allowed values and replacing them with a reference to Annex D. In discussion of this RID, the WG also determined that the arcMin was not suitable for retention in the standard, whereas the arcsecond would be useful for very small numbers.
Daniel Heater	daniel.l.heater@nasa.gov	Throughout and C-1	Throughout and C-1	Basic Types and Operators	Strongly recommend removing the definition of basic types (integer, real) and list of these as well as operators (APPEDIX C) from this document. The purpose of this document should be to define a standard data exchange format. The operators and operations are an attempt to specify a scripting language in XML. This will make implementation of this standard much more difficult. Also, due to variances in implementation and platforms the results of mathematical operations is likely to produce varying results undermining the intent to provide a machine and implementation independent data exchange format. Attempts to define a mathematic notation and parser in XML would be better brought forward in a separate specification.	Recommended	REJECTED. The material cited in the document is fundamental to the standard.
Ken Schrock	ken.schrock@nasa.gov	PDF pg. 3	3.3.2.14	Reference Frame Entity Type	It is not clear if this section is referring to the Coordinate Reference System / Frame (e.g. J2000, Ares 1950, etc.), or something else. Please restate section description for clarity.	Recommended	ACCEPTED. Added explanatory text at the beginning of the section, and highlighted the two annexes dealing with reference frames.
Ken Schrock	ken.schrock@nasa.gov	general	general		Global comment: illustrations would be helpful within subsections, to further illustrate reference frames and vehicle attitudes.	Recommended	ACKNOWLEDGED. It is acknowledged that illustrations would be helpful within subsections, however, the CCSDS publication guidance limits the amount of informative material within the normative sections of the document (Sections 3-n).

COMMENT RESOLUTION MATRIX: <PRM Red Book December 2015>
<February 25, 2016>

Page	Section	Line	Type	Comment/ Rationale	Source of Comment (Name/Agency)	Suggested Disposition	Disposition (Completed by Principal Editor)
B-2	B1	Line 2 of note	Ed	Are the definitions of MET and MRT reversed	Dale Force/NASA	Consider	ACCEPTED. Good catch... it was also found that this error exists in other Nav WG standards; it will be corrected where ever the error exists.
C-2	C	6	Ed	Should need for divisor to not be equal to zero be mentioned?	Dale Force/NASA	Consider	ACKNOWLEDGED. The risk of division by zero (or other numerical issues) is acknowledged, and assumed to be handled properly by the post-processor of the PRM.

(Type: ge = general, te = technical, ed = editorial)

	REVIEWER'S NAME	REVIEW COORDINAT(	REVIEWERS E-MAIL ADDRESS	PAGE NUMBER	PARAGRAPH NUMBER	DESCRIPTION OF REQUESTED CHANGE: (Use From: "..." To "..." format)	CATEGORY OF REQUESTED CHANGE	Created	DISPOSITION
Empty Table	Patrick Zimmerman	Barton Richard	patrick.zimmerman@nasa.gov	G-1	G1	Table is empty. If document has reached maturity, suggest filling in with applicable items. Suggest filling in ICD table with applicable items from document.	Recommended	3/21/2016 11:09 AM	ACCEPTED. Table will be filled in.
Wrong font	Patrick Zimmerman	Barton Richard	patrick.zimmerman@nasa.gov	F-2	2)	End of sentence period appears to be in wrong font style and size. Suggest changing period mark from Courier to the consistent font style and size.	Editorial	3/21/2016 11:08 AM	ACCEPTED. Font will be corrected.
Wrong font	Patrick Zimmerman	Barton Richard	patrick.zimmerman@nasa.gov	F-2	2)	'phaseAngle' appears to be in Times New Roman, wrong font style and size in both instances. Suggest changing 'phaseAngle' to Courier font style and correct size in both instances.	Editorial	3/21/2016 11:07 AM	ACCEPTED. Font will be corrected.
Possible excess wording	Patrick Zimmerman	Barton Richard	patrick.zimmerman@nasa.gov	F-1	1)	Possible excess wording in the i.e. statement – "base frame v base frame". Suggest removing one of the instances of 'base frame' from statement	Editorial	3/21/2016 11:06 AM	ACCEPTED. Correct wording will be evaluated
Ordering	Patrick Zimmerman	Barton Richard	patrick.zimmerman@nasa.gov	B-2	B2	Suggest swapping order of TOD and TNW to maintain alphabetic listing. Change to: TNW A local orbital coordinate frame… TOD True of Date	Editorial	3/21/2016 11:05 AM	ACCEPTED.
Ordering	Patrick Zimmerman	Barton Richard	patrick.zimmerman@nasa.gov	B-1	B1	Suggest swapping order of TDB and TCG to maintain alphabetic listing. Change to: TCG Geocentric Coordinate Time TDB Barycentric Dynamical Time	Editorial	3/21/2016 11:04 AM	ACCEPTED
Incorrect term	Patrick Zimmerman	Barton Richard	patrick.zimmerman@nasa.gov	A-3	A2	A2 section title in error, suggest changing to state 'pointing request'. Suggest changing to: A2 ICS PROFORMA FOR POINTING REQUEST MESSAGE	Editorial	3/21/2016 11:03 AM	ACCEPTED
Incorrect term	Patrick Zimmerman	Barton Richard	patrick.zimmerman@nasa.gov	A-2	A1.2	'CDM' appears twice, suggest replacing with 'PRM'. Occurs within the NOTE in the Feature Column section and in the Keyword Column section as well. Suggest changing to: NOTE – The features itemized in the RL are elements of a PRM. The keyword column contains, where applicable, the PRM keyword associated with the feature.	Editorial	3/21/2016 11:03 AM	ACCEPTED
Footers	Patrick Zimmerman	Barton Richard	patrick.zimmerman@nasa.gov	4-2 through	4.2.2.1 through 4.11.2.1	Figure footers missing for all figures in section 4. Suggest adding figure notation to all XML examples	Editorial	3/21/2016 11:01 AM	TBD. Ask Tom Gannett
Quotes	Patrick Zimmerman	Barton Richard	patrick.zimmerman@nasa.gov	3-7 through 3-21		3 Attributes in the examples throughout section 3 show both single and double quotes around values. While either quote type is legal, should there be a drive towards consistency in the document to one or the other?	Editorial	3/21/2016 11:00 AM	ACCEPTED. Single quotes in XML code will be changed to double quotes.

						Suggest changing quotes around all attributes in examples in the Tables to double quotes, as that would be consistent with the style used throughout all the provided XML examples.			
Sentence Clarity	Patrick Zimmerman	Barton Richard	patrick.zimmerman@nasa.gov	3-18	3.3.2.17.2	This definition uses 'Must', whereas the similar 3.3.2.15.2 uses 'Shall'. While must/shall are interchangeable, it lacks consistency. Suggest changing 'must' to 'shall', as 'shall' is the predominant usage throughout book.	Editorial	3/21/2016 10:58 AM	PARTIALLY ACCEPTED. Lead editor will change selected instances of "must" to "shall", at his discretion. For consistency, this will primarily be in requirements statements as opposed to table entries.
Duplication	Patrick Zimmerman	Barton Richard	patrick.zimmerman@nasa.gov	3-17	3.3.2.15.3	Duplication of 3.3.2.15.2. Suggest deleting 3.3.2.15.3	Editorial	3/21/2016 10:57 AM	ACCEPTED. 3.3.2.15.3 will be deleted.
Sentence Clarity	Patrick Zimmerman	Barton Richard	patrick.zimmerman@nasa.gov	3-13	3.3.2.9.2	Overuse of the words 'direction vector' within a single sentence. Suggested change: The resulting direction vector is the value of the direction vector defined by the dirVector child element at the epoch defined by the refEpoch child element.	Editorial	3/21/2016 10:56 AM	ACCEPTED. Moderate wordsmithing of suggested text will be performed.
Missing description	Patrick Zimmerman	Barton Richard	patrick.zimmerman@nasa.gov	3-12	3.3.2.9.2	The Elements description for spherical is unclear, suggest elaboration on the 2 real numbers, as is done with raDec definition. Suggested description: spherical (for which the text content is a list of 2 real numbers representing polar angle and azimuth angle)	Editorial	3/21/2016 10:54 AM	ACCEPTED. Definition of spherical will be improved.
Syntax error	Patrick Zimmerman	Barton Richard	patrick.zimmerman@nasa.gov	3-11	3.3.2.8	In the 'List of reals operation' Element description, move the final period outside of the close quote mark. Suggested change: (See description of operators and child elements in annex C).	Editorial	3/21/2016 10:53 AM	REJECTED. Punctuation guide consulted, and the usage is correct.
Sentence Clarity	Patrick Zimmerman	Barton Richard	patrick.zimmerman@nasa.gov	3-9	3.3.2.6	Suggest replacing the word 'plus' within the description sentence as it is one of the operator types words. Suggest 'as well as'. Suggested change: operator attribute identifying the operation to be performed as well as the child elements over which the operation is performed.	Editorial	3/21/2016 10:52 AM	ACCEPTED.
Table Headers	Patrick Zimmerman	Barton Richard	patrick.zimmerman@nasa.gov	3-7	3.3.2.1-3.3.3.4.3	Table headers missing for vast majority of Tables in section 3. Suggest adding Table Headers	Editorial	3/21/2016 10:51 AM	TBD. Ask Tom Gannett
Missing description	Patrick Zimmerman	Barton Richard	patrick.zimmerman@nasa.gov	3-6	3.3.1.5	Direction Vector entity does not describe 'spherical', which is included in the definition in 3.3.2.9.2 Suggest adding spherical definition (polar angle, azimuth angle) into description	Editorial	3/21/2016 10:50 AM	ACCEPTED
Missing word?	Patrick Zimmerman	Barton Richard	patrick.zimmerman@nasa.gov	3-4	3.2.3.1	Missing word in sentence? Should 'Pointing Request' be 'Pointing Request Body'? Suggested change: The pointing request body shall describe the attitude of a spacecraft or any of its articulate parts over a period of time (attitude timeline).	Editorial	3/21/2016 10:49 AM	ACCEPTED.
Unclear statement	Patrick Zimmerman	Barton Richard	patrick.zimmerman@nasa.gov	3-2	3.2.1.14	Not clear why a reference is provided for <definition> when references are not provided for any other keyword within section 3.2.1 Suggest removing "-see 3.2.2"	Editorial	3/21/2016 10:46 AM	ACCEPTED.

Correct reference?	Patrick Zimmerman	Barton Richard	patrick.zimmerman@nasa.gov	3-1	3.1	Is reference to section 3.3.3.3 correct? Verify references. Potentially should be "(see 3.2, 3.3 and 3.4)"?	Editorial	3/21/2016 10:45 AM	TBD. Fran will review prior drafts to see if there was a regression or other error.
Awkward sentence	Patrick Zimmerman	Barton Richard	patrick.zimmerman@nasa.gov	2-2	2.4	Use of word complexity twice within sentence. Suggest altering 2nd instance for variety, such as: The complexity of the pointing requests and the involved elements make it necessary to provide an implementation that supports those characteristics.	Editorial	3/21/2016 10:44 AM	REJECTED. Matter of style.
Inconsistent structure	Patrick Zimmerman	Barton Richard	patrick.zimmerman@nasa.gov	2-2	2.3	Structure of opening paragraph of 2.3 inconsistent with structure of opening paragraph of 2.2. Suggest altering sentence for consistency to: Pointing requests are passed, for instance, from the user of a relay service to the provider. Examples are:	Editorial	3/21/2016 10:43 AM	ACCEPTED.
Unclear example	Patrick Zimmerman	Barton Richard	patrick.zimmerman@nasa.gov	2-2	2.2	Pointing request example seems unclear, suggest re-wording. Is the antenna beam passing 'through' the atmosphere? 'above' the atmosphere? Other? Suggested change: - point the onboard high gain antenna of a planetary orbiter at the earth such that the antenna beam passes through the planet's atmosphere at a given altitude;	Editorial	3/21/2016 10:42 AM	ACCEPTED.
Abbreviation	Patrick Zimmerman	Barton Richard	patrick.zimmerman@nasa.gov	2-1	2.2	Arbitrary use of abbreviation S/C. Suggest replacing S/C with spacecraft.	Editorial	3/21/2016 10:41 AM	ACCEPTED.
Sentence Clarity	Patrick Zimmerman	Barton Richard	patrick.zimmerman@nasa.gov	2-1	2.1	Awkward sentence structures and phrasing. Suggested rewording as: Recently a formal language representation started to be used for the transmission of science pointing requests for certain missions in ESA. This has resulted in different approaches for different missions even within the same space agency.	Editorial	3/21/2016 10:40 AM	ACCEPTED. Considerable wordsmithing of suggested text will be performed.
Ordering	Patrick Zimmerman	Barton Richard	patrick.zimmerman@nasa.gov	1-2	1.5	Listing of Annex F and Annex E out of order. Suggest re-ordering as: Annex E Annex F	Editorial	3/21/2016 10:35 AM	ACCEPTED.
Acronyms Used in Document, but Not in Annex H	David S. Berry	Berry David	david.s.berry@jpl.nasa.gov	H-1	Acronyms Table	There are a few acronyms used in the document that do not appear in Annex H. These could be considered for addition to Annex H: ADM: Attitude Data Messages DOY: Day of Year ICS: Implementation Conformance Statement NAIF: Navigation Ancillary Information Facility NDM: Navigation Data Messages ODM: Orbit Data Messages RL: Requirements List (part of ICS) SANA: Space Assigned Numbers Authority SC: spacecraft SFTP: Secure File Transfer Protocol TDM: Tracking Data Message	Recommended	3/30/2016 7:51 PM	ACCEPTED. Lead Editor may use discretion as to whether or not acronyms are placed in the Annex or spelled out.

						URL: Uniform Resource Locator XSL: XML Stylesheet Language (or Extensible)			
Acronyms Not Used in Document	David S. Berry	Berry David	david.s.berry@jpl.nasa.gov	H-1	Acronyms Table	There are a few acronyms in the table that could be considered for deletion due to their not really being used in the document. These are: ASCII CNES ISO ITRS JAXA MOIMS	Recommended	3/30/2016 7:42 PM	ACCEPTED.
Picture?	David S. Berry	Berry David	david.s.berry@jpl.nasa.gov	F-1	2) Pointing Direction and phaseAngle	I find the text in this section to be a bit hard to follow. I wonder if a picture would help? (similar to what was done on page F-3).	Recommended	3/30/2016 7:39 PM	ACCEPTED. Wordsmithing will occur.
Paragraph Construction	David S. Berry	Berry David	david.s.berry@jpl.nasa.gov	E-3	E2	I think the section E2 is a bit awkward as presently constructed. I would recommend starting with the statement "The following PRM related items will be registered with the SANA Operator:". This should be followed with the list of items (i.e., PRM XML templates, spacecraft names, PRM originators). The instructions regarding the registration rules for new entries should be the last sentences in this section, in my opinion.	Recommended	3/30/2016 7:37 PM	ACCEPTED.
Typo in %offsetAngle% Tag	David S. Berry	Berry David	david.s.berry@jpl.nasa.gov	4-8	Table 4-2	The word "annular" is used where "angular" is meant. From: "annular" To: "angular"	Editorial	3/30/2016 6:56 PM	ACCEPTED.
Operation Name	David S. Berry	Berry David	david.s.berry@jpl.nasa.gov	C-3	(9) cumm	I believe the operation name is meant to be an abbreviation of "accumulate" which has only single "m". Perhaps the operation should be called "accum" ? From: "cumm" To: "accum"	Recommended	3/25/2016 8:53 PM	ACCEPTED. Operation will be renamed "accumulate".
ITRF Frames	David S. Berry	Berry David	david.s.berry@jpl.nasa.gov	B-2	B2	Should we provide a template for ITRF versions not explicitly listed? (e.g., ITRFnnnn) so versions not equal to 2000 could be referenced?	Recommended	3/20/2016 8:07 PM	ACCEPTED, with change from "nnnn" to "YYYY" for consistency with ODM draft. Also companion change to ICRF (4 characters indicating year) was proposed in discussion and accepted. Some explanatory docs for ITRF-93 and ITRF-97 will also be added.
ICS Traces	David S. Berry	Berry David	david.s.berry@jpl.nasa.gov	A-4	A2.1.5	The following ICS traces should reviewed to ensure that they are correct: Item 10 - Definition block: shows trace to 5.4.3.3 but it seems that 5.4.3.2 is a better trace since it reflect the optional nature and 5.4.3.3 does not. Item 12 - Secondary frame: shows a trace to 5.4.3.7.2 but that requirement does not reflect the optional nature of secondary frames; it just states that they shall be uniquely named. In fact, secondary frames may not be optional, since 3.2.2.8 states that they shall be included in the definitions.	Recommended	3/20/2016 8:04 PM	ACCEPTED for Item 10. ACCEPTED for Item 12 with mods (changed trace section as well as Status). ACCEPTED for Item 17, 18, 19, 23, 24, 25

						Items 17, 18 - Are shown in the ICS as optional, but 5.4.3.10.1 implies to me that they are in fact mandatory. Item 19 - Is shown in the ICS as optional, but 5.4.3.11 implies to me that it is in fact mandatory. Item 23 - Seems like a better trace would be 5.4.4.4.1 Item 24, 25 - Seems like a better trace would be 5.4.4.4.3, and the items made mandatory based on that requirement. Item 26 - I don't understand the trace here.		LEAD EDITOR WILL INVESTIGATE ITEM 26 TRACE
Copy/paste error #3	David S. Berry	Berry David	david.s.berry@jpl.nasa.gov	A-3	A2 (Title)	The title of the section is "ICS PROFORMA FOR CONJUNCTION DATA MESSAGE", as copied from the CDM document. From: "CONJUNCTION DATA" To: "POINTING REQUEST"	Editorial	3/20/2016 7:37 PM	DUPLICATE, ACCEPTED.
Copy/paste error #2	David S. Berry	Berry David	david.s.berry@jpl.nasa.gov	A-2	A1.2	There is another instance of "CDM" slightly down the page from earlier instance, in the "Keyword Column" discussion. From: "CDM" To: "PRM" Note: I should have combined the 2 "CDM" RIDs, but didn't notice the second until the first RID had already been submitted, and there is no way to edit them.	Editorial	3/20/2016 7:33 PM	DUPLICATE, ACCEPTED.
Copy/paste error	David S. Berry	Berry David	david.s.berry@jpl.nasa.gov	A-2	A1.2	In the "NOTE" it is stated that "The features itemized in the RL are elements of a CDM". From: CDM To: PRM	Editorial	3/20/2016 7:29 PM	DUPLICATE, ACCEPTED.
Overlapping Blocks in Timelines?	David S. Berry	Berry David	david.s.berry@jpl.nasa.gov	5-11	5.4.4.4.2	This RID is more of a question than anything else. The example in this section with several blocks in the timeline shown made me wonder about overlapping blocks. It seems that this perhaps should not be allowed (at least not for the same instrument). I did searches on terms like "overlap" and "unique" but did not find anything that appeared to prohibit overlapping attitude timelines. If there is not such a requirement, should there be?	Editorial	3/20/2016 7:17 PM	NO ACTION NECESSARY
Possible Duplicate Requirement	David S. Berry	Berry David	david.s.berry@jpl.nasa.gov	5-6 to 5-7	5.4.3.11.3 and 5.4.3.11.4	The text in the cited sections seem to be duplicated; there is (to me) no difference. Preference would be to retain 5.4.3.11.4 since it has the example code with it.	Recommended	3/20/2016 6:54 PM	REJECTED. The requirements are in fact different. Bolding of text may be used to accentuate the difference.
Placement of Explanatory Note	David S. Berry	Berry David	david.s.berry@jpl.nasa.gov	5-6	5.4.3.11.1	The note that appears in this section might be useful in Section 5.1 as part of the general discussion.	Recommended	3/20/2016 6:49 PM	ACCEPTED.

Terminology	David S. Berry	Berry David	david.s.berry@jpl.nasa.gov	5-3, 5-4	5.4.3.6, 5.4.3.9	This section (and 5.4.3.9) use the term "privileged direction" in a way which seems unfamiliar (usually used with respect to polarized light). It might be desirable to either use a more common term, or define in a "NOTE" what is meant by the term "privileged direction" in the context of the PRM. Note: It almost seems as if the material in 5.4.3.6 and 5.4.3.9 could be combined into a single requirement (modifying 5.4.3.9 seems possible).	Recommended	3/20/2016 1:47 PM	ACCEPTED. The term "reference direction" will be used instead of "privileged direction" in both sections. The Lead Editor will consider ways in which the content of the 2 sections can be combined, without negatively affecting the examples.
Sentence Clarity	David S. Berry	Berry David	david.s.berry@jpl.nasa.gov	5-2	5.4.1	The word "requests" in the "From" statement seems to be either a possessive or unnecessary. It is also possible that it is needlessly/incorrectly pluralized. From: "...the two main constituents of any PRM are the definition element in the metadata container and the requests data element..." To (if meant to be possessive): "the two main constituents of any PRM are the definition element in the metadata container and the request's data element..." OR To (if just meaning to point out the data element): "...the two main constituents of any PRM are the definition element in the metadata container and the data element..." OR To: (if needlessly plural): "...the two main constituents of any PRM are the definition element in the metadata container and the request data element..."	Recommended	3/20/2016 1:29 PM	ACCEPTED. Suggestion 3 (for needlessly plural noun) will be implemented.
Rule for CREATION_DATE	David S. Berry	Berry David	david.s.berry@jpl.nasa.gov	5-1	5.3.5	The text indicates that the rule for assigning the CREATION_DATE attribute exists in Annex B, however, that annex only contains a list of potential TIME_SYSTEM values for the data in the PRM. In all the other Navigation WG Blue Books, the CREATION_DATE is the time in UTC when the message was created. From: "... Annex B..." To: Something like "... an element of type Epoch with a value in UTC when the message was created..."	Recommended	3/20/2016 1:19 PM	ACCEPTED.

						It might actually be better to break 5.3.5 into 2 separate sentences, one for the CREATION_DATE and one for the ORIGINATOR, given that the rules for assigning the values are somewhat different.			
Probable Error in "name" & "ref" Attributes of <block>	David S. Berry	Berry David	david.s.berry@jpl.nasa.gov	4-52, 4-56	4.10.1, 4.10.2	The title of this document section is "LIMB POINTING WITH INERTIAL DIRECTION YAW STEERING", but the "name"/"ref" attributes of the <block> tag in this template are given as "limbWithPowerOptimisedYawSteering", which is inconsistent with other sections of the document. From: "limbWithPowerOptimisedYawSteering" To: "limbWithInertialDirectionYawSteering"	Recommended	3/20/2016 10:27 AM	ACCEPTED.
Typo in %spacecraftAxisCoords% Tag	David S. Berry	Berry David	david.s.berry@jpl.nasa.gov	4-13, 4-49, 4-57	Tables 4-4, 4-16, 4-18	The tag "<Boresight>" (upper case initial character) is not used in this document. In the cited locations, the tag name of "Boresight" is cited for the %spacecraftAxisCoords% variable. From: "Boresight" To: "boresight"	Editorial	3/20/2016 9:59 AM	ACCEPTED.
Typo	David S. Berry	Berry David	david.s.berry@jpl.nasa.gov	4-47	Table 4-15	In all other tables in the document, an example value of "cartesian" (all lower case) is given for various coordinate type variables. In this instance, the example value of "Cartesian" is shown, which does not match the entry in the set of "Allowed values" for that variable. From: "Cartesian" To: "cartesian"	Editorial	3/20/2016 9:47 AM	
Error in %ellipsoidAxisUnits% Description	David S. Berry	Berry David	david.s.berry@jpl.nasa.gov	4-46	Table 4-15	The template in this table is entitled "", but the %ellipsoidAxisUnits% Description refers to "nadir" pointing. I believe "limb" was intended here. From: "nadir" To: "limb"	Technical Fact	3/20/2016 9:39 AM	ACCEPTED.
Inconsistency Between Metadata and Data Sections	David S. Berry	Berry David	david.s.berry@jpl.nasa.gov	4-24	4.5.3.1	In the metadata section, the block name is set as "bodyTrackWithPowerOptimisedYawSteering", but in the data section the block ref is referred to as "bodyTrackWithPowerOptimised". From: bodyTrackWithPowerOptimised To: bodyTrackWithPowerOptimisedYawSteering Rationale: Such a discrepancy would cause the PRM to not be processed properly.	Technical Fact	3/13/2016 11:43 PM	ACCEPTED.
Clarification	David S. Berry	Berry David	david.s.berry@jpl.nasa.gov	4-20	4.5.1(d)	I think the following would clarify the text a bit.	Recommended	3/13/2016 11:26 PM	ACCEPTED.

						From: "The Sun and direction are not parallel..." To: "The Sun and pointed SC axis are not parallel..."			
Missing "Allowed Values" Field	David S. Berry	Berry David	david.s.berry@jpl.nasa.gov	4-19	Table 4-6	There are 9 instances of the variable "%targetBodyName%" in the various tables describing how the templates should be filled out. Of the 9 instances, 8 of them include the guidance "Value given in reference [9]" in the "Allowed Values" column. This guidance is missing in Table 4-6. From: "" (blank) Allowed Values for %targetBodyName" To: "Value given in reference [9]"	Editorial	6/3/16 19:25	ACCEPTED.
Inconsistent Guidance to User	David S. Berry	Berry David	david.s.berry@jpl.nasa.gov	4-16	Table 4-5	In the table, the "Allowed Values" for the variable "%targetOEM%" is given as "Valid URL", however the "Allowed Values" for the variable %OEM% is blank. On the other hand, there are only two instances of "%targetOEM%" in the tables, one of which has the guidance and the other is blank. The blank field in "Allowed Values" is consistent with the 9 instances of "%OEM%" Since the "Description" field in the table indicates that this is a URL to an orbit file, one can assume that it must be valid as it would not make sense to supply an invalid URL. From: "" (blank) on "%OEM" To: "Valid URL" OR From: "Valid URL" on "%targetOEM%" To: "" (blank)" Depending on the direction of consistency preferred.	Editorial	6/3/16 19:10	ACCEPTED.
Incorrect Reference	David S. Berry	Berry David	david.s.berry@jpl.nasa.gov	4-8, 4-13, 4-19, 4-58, 4-64	Tables 4-2, 4-4, 4-6, 4-18, 4-20	There are several instances of directing the reader to a section in the document that are incorrect. In the instances cited above, the reader is directed to use a value "according to the real value representation in 3.3.2.6"... however, the real values are discussed in 3.3.2.7. From: 3.3.2.6 (in instances cited above) To: 3.3.2.7	Editorial	6/3/16 18:32	ACCEPTED.
Inconsistent Unit Usage	David S. Berry	Berry David	david.s.berry@jpl.nasa.gov	4-8, D-1	Table 4-2, Annex D	In the "Example Value" for %phaseAngleUnits% and %offsetAngleUnits%, there is a value of "Deg" (capitalized). There are only 3 instances of this units value being capitalized; 2 are in Table 4-2, and one is in Annex D. There are over 100 instances of the unit being uncapitalized (i.e., "deg").	Editorial	6/3/16 18:22	ACCEPTED

						From: "Deg" To: "deg"			
Undefined Acronym	David S. Berry	Berry David	david.s.berry@jpl.nasa.gov	4-1	4.2.1	The acronym "SC" is used here for the first time in the text (it appears earlier in XML code, which is not problematic). Also, "SC" does not appear in the acronyms and abbreviations Annex H. Recommend to spell out the first instance "spacecraft (SC)". Also to add "SC" to Annex H.	Recommended	4/3/16 20:05	ACCEPTED
Potential Errors in Example	David S. Berry	Berry David	david.s.berry@jpl.nasa.gov	3-23	3.4.4	Towards the bottom of the example there is a comment stating "Naming of a parameter to be Parameter3", however, the "localName" attribute contains "angle2". This seems to be a disconnect. There is also a comment with typo "de fault" that should be "default".	Editorial	4/3/16 19:53	ACCEPTED.
Orphan "name"	David S. Berry	Berry David	david.s.berry@jpl.nasa.gov	3-23	3.4.4	The first comment in the XML example states "Naming of an element to be Tree2", however, there appears to be no connection between this comment and the example.	Editorial	4/3/16 19:29	ACCEPTED.
Possible Typo	David S. Berry	Berry David	david.s.berry@jpl.nasa.gov	3-23	3.4.3.2.11 NOTE	The NOTE in this section refers to "the referenced pared element" but from the context I think "pared" is supposed to be "parent". The word "pared" does not appear anywhere else in the document. From: "pared element" To: "parent element"	Editorial	4/3/16 19:21	ACCEPTED.
Reference Recommended	David S. Berry	Berry David	david.s.berry@jpl.nasa.gov	3-14	3.3.2.11	On the Representation "Orbit file" in the table, it would be good to add the notation for reference [7], the Orbit Data Messages.	Recommended	1/3/16 19:55	ACCEPTED.
Potential Error in List of Operators	David S. Berry	Berry David	david.s.berry@jpl.nasa.gov	3-13	3.3.2.9, "Direction vector operation"	The text states that there is an "operator attribute of data type String. Allowed values are: cross, derivative, unaryMinus, dirVector." However, "dirVector" does not seem to make sense, and the operation is not defined in Annex C. I think that "dirVector" is not intended to be in the list of operators.	Recommended	1/3/16 19:42	ACCEPTED.
Data Type Question	David S. Berry	Berry David	david.s.berry@jpl.nasa.gov	3-5	Table 3-1, "Epoch"	The table entry indicates that the data type is "ndm:epochType", but it's unclear to me how this will work if schemas are not used for the templates, but the "ndm:epochType" is defined in an XML schema. (Note: The category is "Technical Fact", but this is more of a "Technical Question". NOTE that this RID is not unique because there are a few other references to common "ndm" data types in the table. Same question applies to them as well, e.g., ndm:durationType, ndm:stateVectorType.	Technical Fact	2/14/2016 10:20 PM	ACCEPTED. References to the XML schemas where the types are actually defined will be added instead of a reference the NDM/XML document, which does not define the types.
Typo	David S. Berry	Berry David	david.s.berry@jpl.nasa.gov	3-3	3.2.2.3	From: "... of different version..."	Editorial	2/14/2016 1:28 PM	ACCEPTED.

						To: "... to different versions..."			
XML Tag Consistency	David S. Berry	Berry David	david.s.berry@jpl.nasa.gov	3-2	3.2.1.10, 3.2.1.11	The cited sections show XML tags "<originator>" and "<creation date>". Examples in Figure 3-1 and section 5.3.2 show "<ORIGINATOR>" and "<CREATION_DATE>", which is consistent with reference [6] the NDM/XML. From: <originator>, <creation date> To: <ORIGINATOR>, <CREATION_DATE>	Recommended	2/14/2016 1:09 PM	ACCEPTED.
Incorrect Reference	David S. Berry	Berry David	david.s.berry@jpl.nasa.gov	3-1	3.2.1.4, 3.2.1.5	The cited sections refer the reader to reference [7], but it should actually be reference [6]. From: reference [7], section 4 To: reference [6], section 4		2/14/2016 1:00 PM	ACCEPTED.
SANA Registry for PRM Templates	David S. Berry	Berry David	david.s.berry@jpl.nasa.gov	E-3	E2	The cited section states that the PRM templates will be registered with the SANA Operator. We should provide a link to the registry (in the same manner as links have been provided for the spacecraft names and PRM originators).	Recommended	2/14/2016 12:54 PM	ACCEPTED. However in order to change the document it is necessary to request a URL for the templates from the SANA operator.
Use of Abbreviation	David S. Berry	Berry David	david.s.berry@jpl.nasa.gov	2-1	2.2	The abbreviation "S/C" for the word "spacecraft" is used in this paragraph, but "S/C" is not in the Annex H of abbreviations and acronyms. However, "S/C" is only used once in the document, whereas the full word "spacecraft" is used nearly 50 times. Proposed change: From: "S/C" To: "spacecraft" This avoids having to add another acronym to the Annex H. Alternatively, "S/C" could be added to Annex H and the existing text left unchanged.	Editorial	2/14/2016 12:42 PM	DUPLICATE, ACCEPTED.
Empty Table	David S. Berry	Berry David	david.s.berry@jpl.nasa.gov	G-1	G1	The annex is puportedly to be used to consolidate recommended ICD material into one place, however, the table is empty. From: Empty table To: Populate with information from document, OR delete the annex. (Populating the table is preferable).	Recommended	2/14/2016 10:09 AM	DUPLICATE, ACCEPTED.
Annex Listing Out of Order	David S. Berry	Berry David	david.s.berry@jpl.nasa.gov	1-2	1.5	In the discussion of document structure, Annex F appears in the list before Annex E. From: Annex F..., Annex E... To: Annex E..., Annex F...	Editorial	2/14/2016 10:06 AM	DUPLICATE, ACCEPTED.
Typo/Grammer	Phillis Gaines (PIO)	Wickline Tom	phillis.t.gaines@nasa.gov	3-3	3.2.2.3	From: The <definition> elements may contain the version attribute to allow reference of different version of the same definition by the <source> element.	Editorial	2/25/2016 4:57 PM	DUPLICATE, ACCEPTED.

							To: The <definition> elements may contain the version attribute to allow reference of different versions of the same definition by the <source> element. Rationale: There are grammatical/typos throughout the document.			
Relocate Section	Phillis Gaines (PIO)	Wickline Tom	phillis.t.gaines@nasa.gov	5-1		5.3	This section should precede section 3.2.1. Rationale: This section contains the high level structure of all PRMs. Therefore, it should precede sections describing detailed XML implementation of a PRM.	Recommended	2/25/2016 4:48 PM	REJECTED. In this case the reviewer may not be cognizant of the contextual difference between sections 3 and 5. Section 3 deals with the general description of the PRM. Section 5, which deals with building a PRM from scratch.
Split Requirement	Phillis Gaines (PIO)	Wickline Tom	phillis.t.gaines@nasa.gov	3-3	3.2.2.2		Requirement should be split into two requirements. A separate requirement for the <source> element needs to be defined. Rationale: As is, this requirement is somewhat ambiguous.	Recommended	2/25/2016 4:45 PM	REJECTED. The requirement as written is in fact indivisible. The relationship between <definition> and <source> is briefly described in 3.2.1.14, which precedes the cited section.
Incorrect Section Title	Phillis Gaines (PIO)	Wickline Tom	phillis.t.gaines@nasa.gov	3-3	3.2.2		From: POINTING REQUEST ELEMENTS DEFINITIONS To: POINTING REQUEST DEFINITION ELEMENT STRUCTURE Rationale: This section is titled incorrectly. This secion only lists requirements for the <definition> element.	Technical Fact	2/25/2016 4:40 PM	ACCEPTED. This change also necessitates a change to the title 3.2.3 to be consistent.
Incorrect Reference	Phillis Gaines (PIO)	Wickline Tom	phillis.t.gaines@nasa.gov	3-1	3.2.1.5		From: The XML version, root element tag, and NDM/XML header shall be constructed as described in the NDM/XML (reference [7], section 4). To: The XML version, root element tag, and NDM/XML header shall be constructed as described in the XML Specification for Navigation Data Messages (section 4); reference [6]). Rationale: An incorrect reference was called out. It should be reference [6] instead of [7]. The NDM acronym needs to be identified since this is the first usage in the document.	Technical Fact	2/25/2016 4:36 PM	ACCEPTED. The reference number was corrected. The acronym was spelled on 3.2.1.4 (first instance) and not on 3.2.1.5. Acronym was added to list of acronyms.
Incorrect Reference	Phillis Gaines (PIO)	Wickline Tom	phillis.t.gaines@nasa.gov	3-1	3.2.1.4		From: The standard NDM header as described in the NDM/XML (see reference [7], section 4]) shall follow the <prm> tag. To: The standard Navigation Data Message (NDM) header as described in the XML Specification for Navigation Data Messages (section 4); reference [6]) shall follow the <prm> tag.	Technical Fact	2/25/2016 4:33 PM	ACCEPTED. The reference number was corrected. The acronym was spelled on 3.2.1.4 (first instance) and not on 3.2.1.5. Acronym was added to list of acronyms.

						Rationale: An incorrect reference was called out. It should be reference [6] instead of [7]. The NDM acronym needs to be identified since this is the first usage in the document.			
Requirement Organization	Phillis Gaines (PIO)	Wickline Tom	phillis.t.gaines@nasa.gov	3-1	3.2.1 and 3.2.2	Requirements for child elements should be included in subsections to the parent element section. And requirements for element tags should be included in subsections of the named element section. This change would help the reader with clarity of the PRM XML notation requirements.	Recommended	2/25/2016 4:30 PM	REJECTED. The suggestion would require a major reorganization of the entire document, which is to some extent a stylistic matter and may not add sufficient benefit.
PRM Structure	Phillis Gaines	Wickline Tom	phillis.t.gaines@nasa.gov	3-1	3.2	Add table to this section showing the structure for all PRM XML elements, child elements and tags for each element including usage descriptions and a mandatory usage notation in a hierarchical structure. It would be beneficial to the reader responsible for developing a PRM to have available an all inclusive, well structured single table of the PRM XML notation or PRM XML schema.	Recommended	2/25/2016 4:25 PM	ACCEPTED WITH QUALIFICATIONS. We will enhance the level of references in the structure diagram shown in Figure 3.1 to make the detailed structure clearer. The annex A2.1.5 contains a Table that also shows the more detailed level structure. A complete elaboration of all the structural elements and their various attributes is combinatorially prohibitive.