



Pointing Request Message

TECHNICAL CORRIGENDUM 2

The Management Council of the Consultative Committee for Space Data Systems (CCSDS) has authorized the publication of technical corrigendum 2 to CCSDS 509.0-B-1, issued February 2018.

Page 1-4, 1.7 REFERENCES

references [12] and [13], replace references with the following

[12] *Navigation WG Common Module*, “ndmxml-<Version>-common-<Issue>.xsd” at “Navigation Data Messages XML Schema (Unqualified).” Space Assigned Numbers Authority. https://sanaregistry.org/r/ndmxml_unqualified.

[13] *Navigation WG Common Module*, “ndmxml-<Version>-common-<Issue>.xsd” at “Navigation Data Messages XML Schema (Qualified).” Space Assigned Numbers Authority. https://sanaregistry.org/r/ndmxml_qualified.

at end of references list, add

[15] “Time Systems.” Space Assigned Numbers Authority. https://sanaregistry.org/r/time_systems.

[16] “Orbit Centers.” Space Assigned Numbers Authority. https://sanaregistry.org/r/orbit_centers.

[17] “Celestial Body Reference Frames.” Space Assigned Numbers Authority. https://sanaregistry.org/r/celestial_body_reference_frames.

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TECHNICAL CORRIGENDUM 2 TO CCSDS 509.0-B-1 (Continued)

Page 1-4, 1.7 REFERENCES, at end of references list, add (continued)

[18] “Orbit-Relative Reference Frames.” Space Assigned Numbers Authority.
https://sanaregistry.org/r/orbit_relative_reference_frames.

[19] “Spacecraft Body Reference Frames.” Space Assigned Numbers Authority.
https://sanaregistry.org/r/spacecraft_body_reference_frames.

Page 3-7, table 3-1

row Epoch, Type description, change

from: “reference [12]”
to: “references [12] and [13]”

row Duration, Type description, change

from: “reference [12]”
to: “references [12] and [13]”

row State Vector, Type description, change

from: “reference [13]”
to: “references [12] and [13]”

Page 3-17, table 3-12, row Ephemerides object, update Elements description

from:
“ephObject element of data type **String** specifying the celestial object name contained in the ephemeris according to reference [9] as default.”

to:
“ephObject element of data type **String** specifying the celestial object name contained in the ephemeris according to reference [9] or reference [16] as default, if the object is defined in any of these references; otherwise, a user-defined value is acceptable.”

Page 3-24, table 3-20, row Quaternion, Elements description, change

from: “reference [13]”
to: “references [12] and [13]”

TECHNICAL CORRIGENDUM 2 TO CCSDS 509.0-B-1 (Continued)

Page 4-20, table 4-5, row %targetBodyName%, update allowed values

from: “Value given in reference [9]”
to: “Value given in reference [9] or [16]”

Page 4-27, table 4-7, row %targetBodyName%, update allowed values

from: “Value given in reference [9]”
to: “Value given in reference [9] or [16]”

Page 4-35, table 4-9, row %targetBodyName%, update allowed values

from: “Value given in reference [9]”
to: “Value given in reference [9] or [16]”

Page 4-42, table 4-11, row %targetBodyName%, update allowed values

from: “Value given in reference [9]”
to: “Value given in reference [9] or [16]”

Page 4-50, table 4-13, row %targetBodyName%, update allowed values

from: “Value given in reference [9]”
to: “Value given in reference [9] or [16]”

Page 4-56, table 4-15, row %targetBodyName%, update allowed values

from: “Value given in reference [9]”
to: “Value given in reference [9] or [16]”

Page 4-63, table 4-17, row %targetBodyName%, update allowed values

from: “Value given in reference [9]”
to: “Value given in reference [9] or [16]”

Page 4-71, table 4-19, row %targetBodyName%, update allowed values

from: “Value given in reference [9]”
to: “Value given in reference [9] or [16]”

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Page 5-3, paragraph 5.4.3.5, before period at end of paragraph, add

“ or reference [16]”

Page 5-4, paragraph 5.4.3.7.2,

before closing parenthesis at end of paragraph, add

“ or reference [16]”

NOTE below paragraph, second sentence, after ‘reference [9]’, add

“ or reference [16]”

Page B-2, after NOTE at end of table under B1 TIME SYSTEM, add as new paragraph

In addition to the TIME_SYSTEM keywords defined above, it is also acceptable to use the keywords enumerated in the SANA Registry of Time Systems as defined in reference [15].

Page B-2, after table under B2 REFERENCE FRAME, add

NOTE – In addition to the REFERENCE_FRAME keywords defined above, it is also acceptable to use the keywords enumerated in the SANA Registry of Celestial Body Reference Frames, as defined in reference [16], the keywords enumerated in the SANA Registry of Orbit-Relative Reference Frames, as defined in reference [17], and the keywords enumerated in the SANA Registry of Spacecraft Reference Frames, as defined in reference [18].

Page E-3, E2 SANA CONSIDERATIONS

list of PRM elements that should be from the SANA registry, add at end of list

- the PRM time system, for which values from annex subsection B1 or reference [15] can be used;
- the celestial bodies, for which values from reference [9] or reference [16] can be used;
- the PRM reference frames, for which values from annex subsection B1, reference [17], reference [18], or reference [19] can be used.

TECHNICAL CORRIGENDUM 2 TO CCSDS 509.0-B-1 (Continued)

Page E-3, E2 SANA CONSIDERATIONS (continued)

list of PRM elements that should be from the SANA registry (continued)

paragraph following list, delete

The use of reference [9] is a convenient solution of the identification of celestial bodies in absence of a corresponding SANA reference.

at end of same paragraph, add

For celestial bodies, the name in reference [9] or reference [16] is to be used, if the object is defined in any of these references; otherwise, a user-defined value is acceptable.