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|  |  | 3.3 |  |  | “Proximity Operations Control Volume” is used in the document so we should specify it instead.”And additional question. The intent of “Proximity Operations Control Volume” can be expressed with different terminology that an operator likes to say, (e.g. keep-out zone)Do we have a strong reason to specify this terminology in ISO standard? | Remove this unless it’s mandatory. |  |
|  |  | 3.6 |  |  | JAXA’s “Safety Standard for On-Orbit Servicing Missions (JERG-2-026)” defines “Intentional interference by a servicing spacecraft with a client spacecraft for refueling, resupplying, adding or replacing functionalities and assisting post mission disposal.”<http://sma.jaxa.jp/en/TechDoc/Docs/E_JAXA-JERG-2-026.pdf> | Recommend similar definition because current 3.4 does not explain what “service” is. |  |
|  |  | 3.7 |  |  | Definition of “Passively Safe Trajectory” should not be limited to a conjunction with the client’s convex envelope, but rather can be defined based on a sort of operating zones (e.g. keep-out zone).  | “a convex envelope” should be replaced with “operating zones” tied with 5.2.5.1.1 |  |
|  |  | 3.9 |  |  | We don’t have to define such generic word.  | Remove it. |  |
|  |  | 3.13 |  |  | Essentially duplicating with 3.6 | Consolidate to 3.6 |  |
|  |  | 4.1.2.1 |  |  | ISO24113 requires avoiding “intentional release of space debris” and “break-ups.”Because this clause requires further, “minimised” would be reasonable than “avoided” | “Further they shall ensure that the generation of debris during its mission operation is minimised.” |  |
|  |  | 4.2 |  |  | “commercial” is still left in the April 2020 version. We remember it was agreed to remove “commercial” in the previous coordination. | Remove “commercial” |  |
|  |  | 4.2.2 |  |  | CONOPS which is defined in 5.1.3 should be disclosed for better communication. | “by sufficient communications ~~and coordination~~ with entities not associated with the RPO/OOS activities so that their ~~have reasonable~~ concerns~~, due to proximity, about the~~ on the mission intentions or interference by the ~~servicing~~ operation will reasonably be relieved ~~to support safety and avoid harmful interference~~. CONOPS, refer to 5.1.3, should be disclosed for proper understanding.” |  |
|  |  | 4.2.5.2 |  |  | ISO24113 does not specify detail manner for controlled re-entry. ISO27875 is much suitable.<https://www.iso.org/standard/74251.html> | Refer ISO27875 in lieu of ISO24113. |  |
|  |  | 5.1.1 |  |  | Only the last sentence is requirement, others look all just info.We’re not sure how “shall have hardware design certified for system and operational safety” can be implemented. | Refer to related ISO standards because hardware design requirements for spacecraft currently described are basically common. |  |
|  |  | 5.1.2 |  |  | DittoWe’re not sure how “shall have software design verified for system and operational safety” can be implemented. | Refer to related ISO standards because software design requirements for spacecraft currently described are basically common. |  |
|  |  | 5.1.3 |  |  | CONOPS should be at the beginning of Section 5.1. Mostly agree to changes in FR-10 for the first sentence.  | CONOPS will be 5.1.1.Adopt proposal given by FR-10 with “shall” after “(CONOPS)”. |  |
|  |  | 5.1.3 |  |  | How do we define “passively safe orbit,” “safety zones,” “keep-out sphere / volume”…? | We should give flexibility for users, so a standard should define minimum terminologies necessary to explain its requirements. |  |
|  |  | 5.1.3 |  |  | We’re not sure how “shall have the Concept of Operations certified for system and operational safety” can be implemented. | From:The systems involved in OOS shall have the Concept of Operations certified for system and operational safety To:CONOPS shall be consistent with the mission content authorized by the state authority through licensing process. |  |
|  |  | 5.1.4 |  |  | Clarity who must do it.And, let us confirm if “Test” means general ground testing or other specific activity.Sentences from “Organizationally-controlled…” looks unnecessary. Please let us know your intention to note them. | Servicer and client spacecraft operators shall review and verify ~~procedures, including~~ operational procedures ~~and instructions~~ as well as Flight Rules ~~and Test~~ and Operational Limit for completeness, correctness, and safety. |  |
|  |  | 5.1.5 |  |  | Only second sentence is sufficient. The first and third sentence are not essential as a requirement. | Move the first and third sentence to somewhere in informative sections. |  |
|  |  | 5.2.3 |  |  | Specific term introduced in the informative clause should not be used in the requirement main body | Except while in or establishing a final phase of approaching to the client, “Passively Safe Trajectory” shall be used and close approaches with space objects other than the client space object shall be avoided. |  |
|  |  | 5.2.4 |  |  | Clarity who must do it. | Servicer spacecraft operators shall notify affected third parties in advance of close approaches and … |  |
|  |  | 5.2.5 |  |  | Redundant content with 4.1.2 | Delete sentence. |  |
|  |  | 5.2.5.1 |  |  | Should be defined in 3.3 or simply remove because it is unnecessary. | Delete sentence. |  |
|  |  | 5.2.5.1.1 |  |  | Propose modifications.  | Servicers shall reasonably define ~~operations~~ operating zones for reference of passively safe trajectory ~~assure the physical safety of rendezvous~~ and ~~servicing objects and that of other non-participatory~~ interference with a third-party spacecraft. |  |
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