

Request For Deviation (RFD) Processing Status

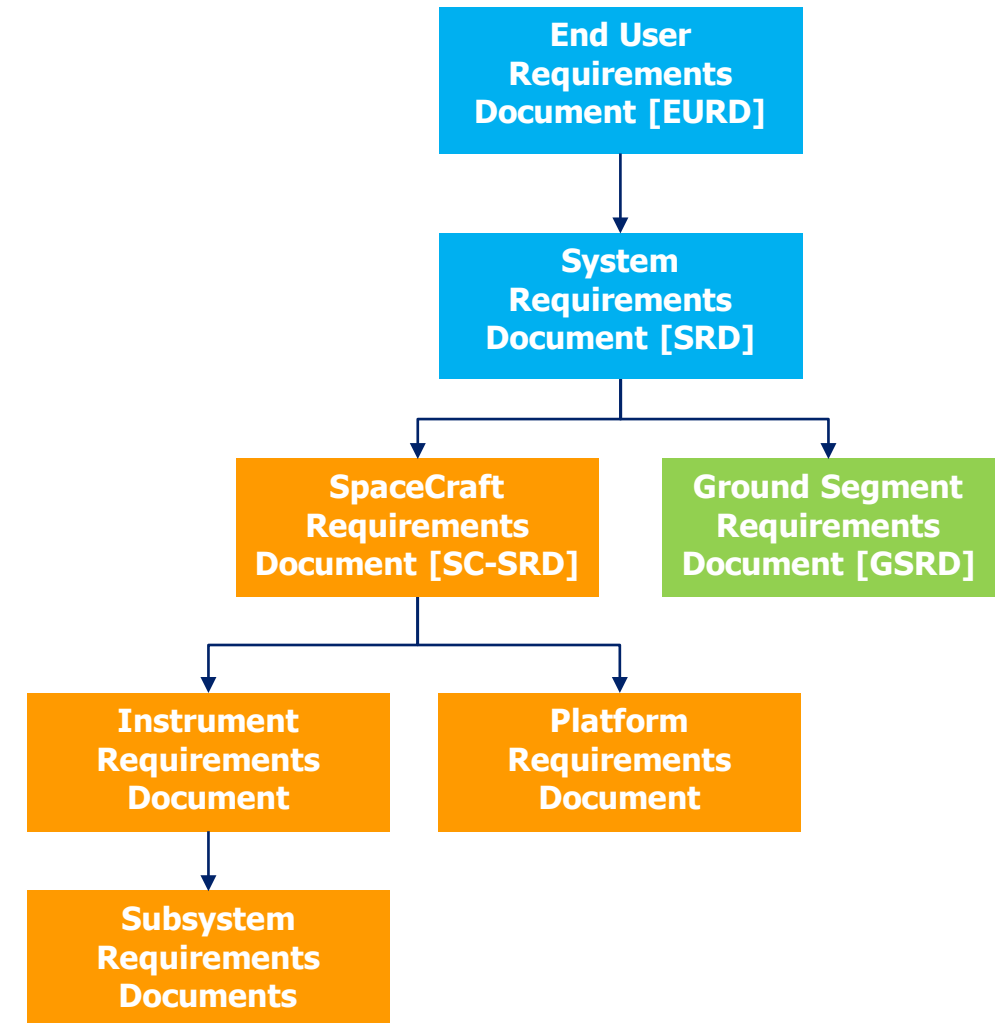
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RFD Processing

- The End User Requirement Document [EURD] requirements are flown down to the [SRD] and then split between the [SC-SRD] and [GSRD].
- At each level the requirement can be enhanced or split between the different contributors, including margin as necessary.
- The RFDs are raised at the relevant level and then considered at the level above. If they impact a requirement at the level above the RFD is propagated upward.
- Thus [EURD] RFDs are only raised if [EURD] requirements are violated.
- Spectral, Optical and Radiometric requirements discussed in the MAG presentations are mainly at instrument level and have an equivalence with [SC-SRD] and [SRD] requirements.
- Geometric requirements have instrument, platform and INR components.



Impact on [EURD] Requirements

- Not all the RFDs raised at instrument level have a direct link to a requirement in the End User Requirement Document [EURD].
- The table provides a link from the RFD to the [EURD] requirement, without characterization related RFDs.
- It is important to provide a full view of the performances as, although not covered by the [EURD], these other requirements are important for the use of the data under different observation conditions.

Requirement	RFD	[EURD]	Status
Solar Restricted Zones for radiometric and detection performances applicability	010	LI-06090 LI-06100	Open
Absolute Sample Position Knowledge Error	020		@Satellite
LI 10 minutes dataset Accuracy	023	LI-06080	Withdrawn
Average Detection Probability	034	LI-06090	Withdrawn
LI 10 minutes dataset completeness	035	LI-06060	Withdrawn
Predicted/scheduled outages	036		Withdrawn
LI triggered threshold	039		Withdrawn

Way Forward

- LI request for deviation (RFD) still to be finalised:
 - Solar Restricted Zone (SRZ)
- The status of the performances will be presented to the Autumn round of SWG, OPSWG and STG.
- The LI performance paper is under preparation, based on the LI MAG 10 performance presentations and will be submitted to the LI MAG for comment by end June 2020.
- Final acceptance of non-conformances are agreed between ESA and EUM, taking into account the LI MAG feedback.
- Violations of End User Requirements (EURD) will be referred to the EUMETSAT Council for approval in 2021.

Timeline for Performance Paper Preparation



- The timeline covers the presentation of the performance paper.
- The presentation of the [EURD] RFD in 2021 will take into account the results of the open analyses and mitigation activities completed in 2020.
- The LI PFM radiometric and optical performance tests are due Q3-4 2020 these also have potential to affect the RFD status.

Back-up Slides

Average Detection Probability (ADP)

- The ADP of the smallest lightning optical pulses is lower than the 70% requirement for the full field of view, 90% requirement at 45° and 40% requirement for the European zone around midday.

Solar Restricted Zone (SRZ)

- The solar restricted zone is a period of the day/year when the sun is close to the field of view and degraded performance is expected.
- The LI instrument experiences sun stray light around local midnight that
 - Degrades the radiometric accuracy.
 - Reduces the ADP corresponding to the amount of stray light incident on parts of the detector.
 - Produces saturation on some parts of the detector when the sun is very close to or within the field of view of an optical head.
- The 4 optical heads have different stray light impacts at any moment in time.