



## 1 DORIS System improvements

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The DORIS (Doppler Orbitography and Radiopositioning Integrated from Space) system includes: on-board receivers, carried by different satellites, which perform very accurate Doppler shift measurements on radiofrequency signals emitted by a ground stations network and command, control and validations ground segment.

The aim of this paper is to present the last improvements in the global system.

It includes the presentation of the new satellites with DORIS on-board. The stations network progress towards a better quality. The renovation of the stations progress continuously and improves the long term satiability. The new additional time reference stations increase the safety of the system and the control of the on-board segments.

In a next future, the new missions will use the last generation of receivers (DGXX) which implement 7 parallel measurements channels in order to allow more beacons tracked. They will perform phase, delta-phase and pseudo-range measurements with a better accuracy.

On-ground, completing the SSALTO (Orbitography and Altimetry Multi-Mission Center) activities, the DORIS Integrity Toolkit monitors the DORIS signal to assume that it is compliant with the specifications.