

DORIS / Jason-2 : less than 10cm centimeters orbits soon available for Near-Real-Time Altimetry

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With now several decades of cumulated orbital life, (SPOT satellites, TOPEX, ENVISAT, Jason-1, ...) the DORIS system has entered a new age with its DGXX generation receivers.

The first flight of such an instrument, on-board Jason-2, already shows, a few weeks only after the end of Jason-2 commissioning phase, an increased accuracy and enhanced performances w.r.t. the previous instruments.

This receiver will also fly on-board CryoSat-2, Pléiades, Saral/Altika and HY-2, becoming a key tool for high accuracy satellite altimetry : the very first Jason-2 Precise Orbit Ephemeris already show a near-one-centimeter accuracy.

DORIS measurements are now available under a clear RINEX format, the new EGSE now allow ground-demonstration of the DORIS receiver centimeter capability before the launch. Moreover, DORIS is now able to program the altimeter by delivering the expected height of the sea surface in real-time, allowing reduction of tracking loops .

The real-time DIODE orbits are now delivered in the OGDR products and their accuracy is being improved as tunings of the on-board software progress : this will hopefully open the door to a fairly precise Near Real-Time Altimetry.