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The SARAL/AltiKa satellite has been launched the 25th of February 2013 from the launch pad of Sriharikota (India). Since this date, AltiKa provides measurements and affords the first altimetry results in Ka band. This paper recalls the instrument design and assesses the in-flight performance.
The SARAL/AltiKa mission has been developed in the frame of a cooperation between CNES (French Space Agency) and ISRO (Indian Space Research Organization). AltiKa is a single frequency Ka-band altimeter with a bi-frequency radiometer embedded. Both altimeter and radiometer share the same antenna.
Altimeter expertise and routine calibrations performed during assessment phase demonstrate the stability of the instrument. Moreover the performance assessed over ocean are noteworthy such as 0.9 cm on epoch 1 Hz noise for 2 m of SWH, which is fully consistent with simulations and ground pre-flight tests results. The data availability is also very good and very few altimeter measurements are lost due to rain attenuation.
Radiometer data analysis shows that the instrument is very stable and its performances are consistent with pre-flight tests results.
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