Envisat and Jason-1 dynamic orbit determination with DORIS data

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The recently launched altimeter-carrying satellites Envisat and Jason-1 are both equipped with a second generation DORIS receiver and a laser retroflector. The resulting tracking data are used together with dynamic models as the basis for precise orbit determination. An initial internal quality-check of the orbits was made by analyzing the tracking residuals, force model parameters, differences between overlapping orbits, and altimeter crossovers. The influence on these results of the a-priori satellite surface models and several recent gravity-field models has been analyzed.