

Center of Mass Information:

As of February 9, 2016, the location of the center of mass in the spacecraft coordinate system is (X=1.0093 m, Y=0.000 m, Z=-0.0021 m); (X=1.0023 m, Y=0.000 m, Z=-0.0021 m) before launch.

The offset between the center of mass (before launch) and the Retroreflector Array (RRA) optical center is (X=0.192 m, Y = 0.598 m, Z = 0.685 m) also in the spacecraft coordinate system.

The reference system is the same as for [TOPEX](#), [Jason-1](#) and Jason-2, with Z pointing towards the Earth.

An additional elevation-dependent correction (degree four polynomial fit), to be subtracted from the computed range, is required to account for the RRA phase center offset:

$0.0495 + 0.0069 * \theta - 0.1243 * \theta^2 + 0.2480 * \theta^3 - 0.1328 * \theta^4$,
in meters with θ in radians.

Other references for POD-related information:

Jason Postlaunch Satellite Characteristics for POD activities (<ftp://ftp.ids-doris.org/pub/ids/satellites/DORISSatelliteModels.pdf>)

The above document includes information about the satellite macromodel characteristics (for modeling the nonconservative forces), and the DORIS tracking point offsets for Jason-3.

Jason-3 center-of-mass information since launch is available at the following site (IDS):

<ftp://ftp.ids-doris.org/pub/ids/satellites/ja3mass.txt>

Jason-3 follows the same prescribed attitude law as TOPEX, Jason-1 and Jason-2. The spacecraft attitude time history is documented in the following file:

<ftp://ftp.ids-doris.org/pub/ids/satellites/ja3att.txt>

Jason-3 flies in a repeat ~9.9 day repeat ground track to maintain the long-term time history of altimeter data to map the world's oceans. Orbit maneuvers are periodically carried out to maintain this orbit sampling. The Jason-3 maneuver history is available at the following site:

<ftp://ftp.ids-doris.org/pub/ids/satellites/ja3man.txt>

If you experience any problem processing the Jason data or understanding the spacecraft description, please contact

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