

## New model describing the solar radiation pressure on the relay satellite of SELENE

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A new model describing the solar radiation pressure on the relay satellite of SELENE has been developed. The shape of the satellite was assumed to be a combination of an octagonal pillar and a column. The forces acting on each plate and column are computed independently and summed to produce the total acceleration of the satellite. We included this new radiation pressure model into an orbit analysis software GEODYN-II and simulated the tracking data reduction process of the relay satellite. We compared two cases: (1) new radiation pressure model and (2) cannonball model which is prepared in GEODYN-II. We found that the new radiation pressure model significantly reduce the observation residuals.