

**Associate Editor Decision: Publish subject to technical corrections (01 May 2021) by Oliver Reitebuch**

**Comments to the Author:**

With this the manuscript is accepted. Please revise Table 2 for the actual satellite altitude of Aeolus with a mean altitude of 320 km, with an orbital variation of about +/-15 km.

**Answer to the Editor**

*Thank you for the acceptance of the paper and for pointing this correction. The altitude reported in Table 2 has been modified adding a second line for the altitude as "320 km (in space)"*

*As the text in section 5 needed to be modified, we changed lines 598 to 599, accordingly. Starting on line 595 this reads*

Aeolus has been studied to be operated with a 130 mJ / 100 Hz transmitter to meet the requirements but the development of the operational system only allowed using a 65 mJ / 50 Hz transmitter. Considering equations of errors with SNR depending on the square root of the emitted power (product of energy and repetition rate) at high SNR, the reduction in the horizontal resolution (90 km instead of 50 km), the change in altitude (320 km instead of 395/425 km), ALADIN in space should produce a statistical error increased by a factor of about 3.5 as compared to its original dimensioning.