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Poster

The South Atlantic Anomaly (SAA) is a geographical region over the South Atlantic Ocean where the inner Van Allen radiation belt extends down particularly close to Earth. This leads to highly increased levels of ionizing radiation and related impacts on spacecraft in Low Earth Orbits, e.g., correspondingly increased radiation exposure of astronauts and electronic components on the International Space Station. According to an urban legend, the SAA is also supposed to affect the radiation field in the atmosphere even down to the altitudes of civil aviation. In order to identify and quantify any additional contributions to the omnipresent radiation exposure due to the Galactic Cosmic Radiation at flight altitudes, comprehensive measurements were performed crossing the geographical region of the SAA at an altitude of 13 km in a unique flight mission—Atlantic Kiss.

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