

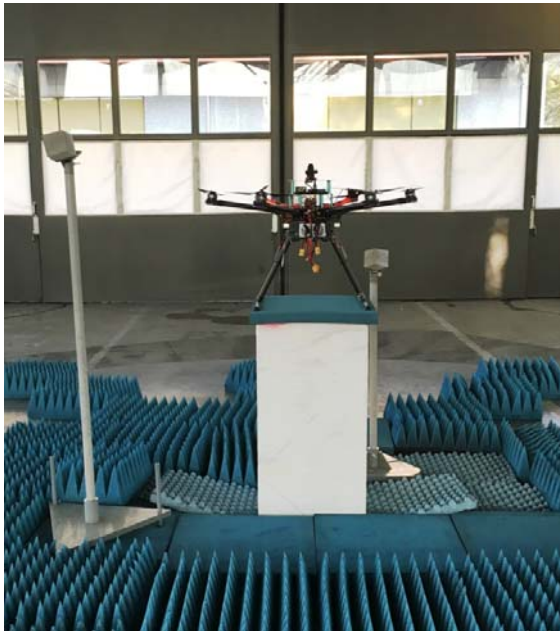


UAV signature measurement with synthetic-aperture radar in Thun

High-resolution radar systems with working frequencies in the upper GHz range are increasingly being used for medium-distance reconnaissance. In October 2017, S+T conducted an extensive series of measurements using the existing measuring infrastructure to determine the angle-dependent radar signature.

Numerous objects (vehicles, UAVs and the NATO 'RATPACK' test object) were placed on a turntable and measured using an inverse synthetic-aperture radar (ISAR) method. In this process, the radar illuminates the rotating object at 35 gigahertz. Based on an evaluation algorithm developed by S+T, the measured data are used to calculate the signature in the form of a 2-dimensional scattering-centre plot. Knowledge of such structures contributes greatly to analysis of reconnaissance scenarios and provides input to the users for the procurement of future imaging radar systems.

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UAV and reference object in the millimetre wave measuring hall? during signature measurement