

EGU21-13053

<https://doi.org/10.5194/egusphere-egu21-13053>

EGU General Assembly 2021

© Author(s) 2021. This work is distributed under the Creative Commons Attribution 4.0 License.



Joint ESA and NASA Imaging Spectrometer Airborne Campaign to Support CHIME and SBG

Robert Green, Michael Rast, Michael Schaepman, Andreas Hueni, and Michael Eastwood
(robert.o.green@jpl.nasa.gov)

In 2018 a joint ESA and NASA airborne campaign was orchestrated with the University of Zurich to advance cooperation and harmonization of algorithms and products from imaging spectrometer measurements. This effort was intended to benefit the future candidate European Copernicus Hyperspectral Imaging Mission for the Environment (CHIME) and NASA Surface Biology and Geology mission. For this campaign, the Airborne Visible/Infrared Imaging Spectrometer Next Generation was deployed from May to July 2018. Twenty-four study sites were measured across Germany, Italy, and Switzerland. All measurements were rapidly calibrated, atmospherically corrected, and made available to NASA and ESA investigators. An expanded 2021 campaign is now planned with goals to: 1) further test and evaluate new state-of-the-art science algorithms: atmospheric correction, etc; 2) grow international science collaboration in support of ESA CHIME and NASA SBG; 3) test/demonstrate calibration, validation, and uncertainty quantification approaches; 4) collect strategic cross-comparison under flights of space missions: DESIS, PRISMA, Sentinels, etc. In this paper, we present an overview of the key results from the 2018 campaign and plans for the 2021 campaign.