

**S02-1**

**Advanced Himawari Imager (AHI) Design and Operational Flexibility**

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The Advanced Himawari Imager (AHI) payload is a revolutionary new design for geostationary imaging, not just an evolutionary update to the MTSAT-2 imager. In addition to providing many more bands at higher spatial resolution, it offers a unique ability to provide user-commanded rapid scan collections automatically interleaved with Full Disk and regional observations within a single instrument. In addition, AHI was designed to deliver unparalleled calibration. Not only does it have both reflective and emissive on-board targets, its scan control flexibility supports all of the traditional vicarious calibration approaches and provides the opportunity for brand new approaches. Even though AHI's north-south field-of-view is more than 60x that of the MTSAT-2 imager and has nearly 500x the number of detector elements, it can easily be calibrated using the same vicarious calibration sources. It also offers the unique ability to collect calibration data in parallel with routine weather image collections instead of interrupting these collections, which should greatly increase the opportunities for collecting calibration data.

This presentation will explain the AHI design and discuss its unique operational capabilities.