Synthetic Imagery Generation over Alaska and Hawaii for GOES-R Product Development

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Abstract

The generation of GOES-R synthetic Advanced Baseline Imager (ABI) data has been an important part of several previous GOES-R Risk Reduction projects. The imagery has provided several major benefits, including: 1) It serves as proxy data for the GOES-R ABI and can therefore be used to develop GOES-R products using the new ABI spectral bands, 2) Forecasters have provided overwhelmingly positive feedback on the helpfulness of synthetic imagery in visualizing Numerical Weather Prediction (NWP) model forecast output (Bikos et al. 2012), and 3) Forecasters can become accustomed to how the new bands on the ABI will look. Continued support for synthetic imagery generation will allow for additional product development and tools to assist in NWP model improvement and visualization for forecasters. Up to this point, all synthetic imagery from high resolution NWP models has been over the Continental U.S. (CONUS) and has excluded both Alaska and Hawaii. This proposal is to begin generating synthetic imagery of GOES-R ABI bands over these 2 new domains. The synthetic data can then be used in GOES-R product development, be used to evaluate the model from which the data is generated, and be sent to National Weather Service (NWS) offices as a visualization tool of the model output.