Hui
Christophersen
U.S. Naval Research Laboratory
Jason Nachamkin, NRL
Wesley Davis, NRL
Oral
This study verifies the regional model COAMPS cloud forecasts against satellite retrievals using traditional, spatial and object-based methods. Most of the verification is conducted leveraging the community tool METplus. Optimal tuning of parameters within the METplus is shown to be particularly important in order to better represent features of interest. The results show that object-based verification depicts similar forecast performance (e.g. frequency bias, equitable threat score) as verified by the traditional pointwise measures. It also demonstrates that COAMPS model forecasts cloud location generally well but tends to overforecast (underforecast) object area over time for unstable (stable) clouds, signifying that object-based verification can provide additional insight beyond the traditional and spatial verification metrics.
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