

Comparing sea surface temperature climatologies from a new high-resolution satellite dataset and I-COADS: reciprocal feedback and insights

Kenneth S. Casey

NOAA/NESDIS National Oceanographic Data Center, USA

E-mail : Kenneth.Casey@noaa.gov

While relatively short compared to the historical ship-based SST record, satellite-based time series from the Advanced Very High Resolution Radiometer are exceeding 20 years in length and have been shown to provide accurate and useful climatological information. A new reprocessing based on an improved Pathfinder algorithm by the University of Miami and the NOAA National Oceanographic Data Center has resulted in a global time series of SST at 4 km resolution dating back to 1985. Climatologies derived from this new satellite product are compared with those from I-COADS and other in situ and blended datasets to reveal insights on the strengths and weaknesses of each. Results indicate useful information can be gained on the quality of not only the satellite observations as is customary with satellite and in situ comparisons, but on the nature of the in situ datasets as well.