

Progress in geostationary SSTs and cloud detection

Andrew Harris

NOAA/NESDIS and UMD/CICS, USA

Andy.Haris@noaa.gov

The high temporal sampling rate of geostationary sensors offers a number of advantages for remotely sensed sea surface temperatures. Firstly, there is the prospect of combining multiple passes to obtain greater spatial coverage of ocean areas that have significant cloud cover. This is particularly advantageous in active regions such as western boundary currents where features change rapidly. Furthermore, there is the opportunity to obtain significant information on the diurnal cycle of ocean surface temperature. We have commenced a project to reprocess all of the GOES-Imager data back to 1994, using state-of-the-art radiative transfer techniques to produce a uniform dataset for community use. As part of this project, new approaches to cloud detection based on combined probabilities, are being explored. The paper highlights both the main characteristics of the geostationary SST data and the methods being employed in their production.