

Sea surface temperature: Sea-surface temperatures from the VIIRS on NPP

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The first flight model of the Visible Infrared Imager Radiometer Suite (VIIRS) will be launched on the National Polar-orbiting Operational Environmental Satellite System (NPOESS) Preparatory Project (NPP) satellite in October 2011. One of the primary geophysical variables to be retrieved from the VIIRS measurements is the skin temperature of the sea surface. This is a Key Performance Parameter for the instrument which means the uncertainties of the skin SST retrievals have to be well established. For this, and other, applications the skin SST uncertainties will be characterized through the deployment of high-accuracy ship-board infrared radiometers in the early validation phase of the mission, and, it is to be hoped, throughout its lifetime. This will provide the knowledge necessary for the appropriate application of the VIIRS SSTs in operations and research, and will facilitate the inclusion of VIIRS SSTs in the long-duration, multi-mission Climate Record of SST. This presentation will include an overview of the SST retrieval process and the planned validation activities.