



The Group for High Resolution Sea Surface Temperature: Past, Present and Future.

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In the last decade, satellite Agencies, science, operational user/producer and Sea Surface Temperature practitioner communities have come together within the Group for High Resolution SST (GHRSSST) to create a new framework for generation, delivery and application of improved common format high-resolution (~1-10 km) satellite SST datasets for the benefit of society. The GHRSSST data system is a mature, robust, and highly reliable near real time and delayed mode data system known as the GHRSSST Regional/Global Task Sharing framework (R/GTS) and has operated in NRT since 2006. It consists of distributed Regional Data Assembly Centers (RDACs) around the world that submit their data to a Global Data Assembly Center (GDAC) maintained at the NASA Jet Propulsion Laboratory Physical Oceanography Distributed Active Archive Center (JPL PO.DAAC), where all the data are available for 30 days. After that they are transferred to the GHRSSST Long Term Stewardship and Reanalysis Facility (LTSRF) at the U.S. National Oceanographic Data Center (NODC) for long-term preservation and distribution. The extensive user base includes many operational meteorological services, the scientific community, industry and Government. Since the R/GTS has operated, statistics show over 72,000 users have accessed the R/GTS in NRT, accessing over 100 million files amounting to more than 232 Tb of information.

GHRSSST has an organisation structure that has both fixed and flexible components allowing it to respond effectively and efficiently to new and emerging challenges. GHRSSST has often been cited as a model for other Virtual Communities/Constellations. GHRSSST is underpinned by an international Science Team and International Project Office together. Long-standing GHRSSST Technical Advisory Groups (TAG) and ad hoc Working Groups (WG) are typically at the “cutting edge” of international SST activities delivering real coordination in space-based Earth observations for societal benefit through the prioritized activities.

Most recently, GHRSSST has formed a strategic alliance with the Committee for Earth Observation Satellites (CEOS) SST Virtual Constellation further strengthening the important and active international GHRSSST Community.

This paper reviews the development of GHRSSST since its early inception in 2000 its evolution and future prospects.